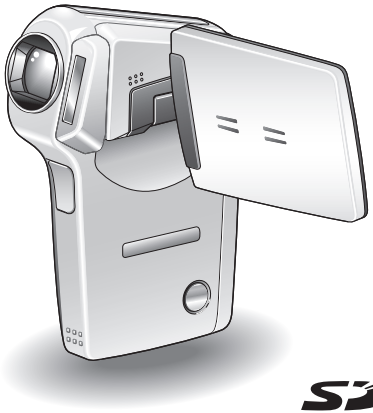
SANYO

INSTRUCTION MANUAL

VPC-CG65EX
VPC-CG65
VPC-CG65GX
VPC-CG65PX

Digital Movie Camera

Xacti



SD HC™

Important note

This manual explains how to safely operate the VPC-CG65EX, VPC-CG65, VPC-CG65GX and VPC-CG65PX.
Any information regarding only one of these products will be labeled as such.

Please read these instructions carefully before using the camera.
Make sure to read and understand the separate booklet “SAFETY MANUAL”.
Keep this manual in a safe place for later reference.

Warning
TO PREVENT THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

FOR AMERICAN USERS

The following advisory is included in accordance with the laws of the State of California (USA):
WARNING:
This product contains chemicals, including lead, known to the State of California to cause cancer, birth defects or other reproductive harm. **Wash hands after handling.**

- This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
  - Reorient or relocate the receiving antenna.
  - Increase the separation between the equipment and receiver.
  - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
  - Consult the dealer or an experienced radio/TV technician for help.
- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Declaration of Conformity

Model number: VPC-CG65
Trade Name: SANYO
Responsible party: SANYO FISHER COMPANY
Address: 21605 Plummer Street, Chatsworth, California 91311
Telephone No.: (818) 998-7322
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

FOR CANADIAN USERS

- This Class B digital apparatus complies with Canadian ICES-003.

FOR EU USERS

Note:

- This symbol mark and recycle system apply only to EU countries and do not apply to countries in other areas of the world.

Your SANYO product is designed and manufactured with high quality materials and components which can be recycled and reused.
This symbol means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from your household waste.
Please dispose of this equipment at your local community waste collection/recycling centre.
In the European Union there are separate collection systems for used electrical and electronic products.
Please help us to conserve the environment we live in!

Symbols used in this manual

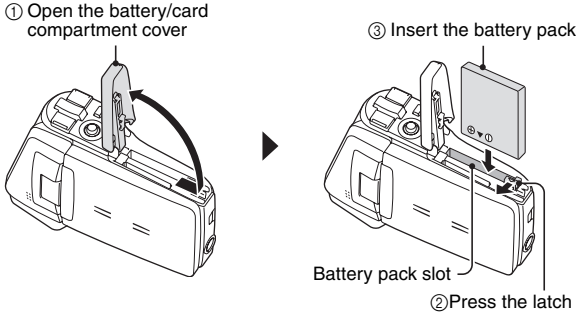
HINT Points giving some extended instructions or special points to pay attention to.
CAUTION Points that require special attention.
(page xx) Refer to the page indicated for detailed information.

You may find the answers to questions or problems concerning camera operation in the sections “COMMONLY ASKED QUESTIONS” (page 161) and “TROUBLESHOOTING” (page 168).

SHOOT, PLAY BACK AND SAVE

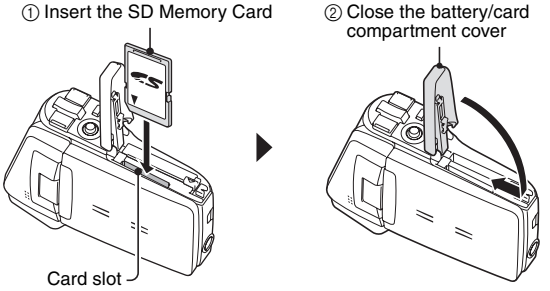
Install the battery pack and card

1 **Insert the battery pack.**



2 **Insert the SD Memory Card.**

- An SD Memory Card is not included with your camera. Please purchase a commercially sold card.
- In this manual, the SD Memory Card is referred to as the “card”.



Before capturing those important shots, be sure to first take a test shot to confirm that your camera is set up and ready to go

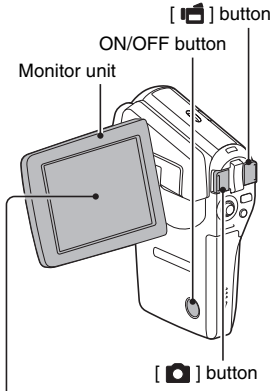
- Sanyo declines any claim for compensation for recorded contents etc. in case of photographing or recording failure due to a chance camera or card flaw.

Shooting

■Video clip recording

1 **Open the monitor unit, and press the ON/OFF button for at least 1 second.**
- The camera turns on.

2 **Press the [ ] button.**
- Recording begins.
- To stop recording, press the [ ] button again.



■Still image photography

1 **Open the monitor unit, and press the ON/OFF button for at least 1 second.**
- The camera turns on.

2 **Press the [ ] button.**
- A still image is captured.

SHOOT, PLAY BACK AND SAVE

Playback

■Video clip playback

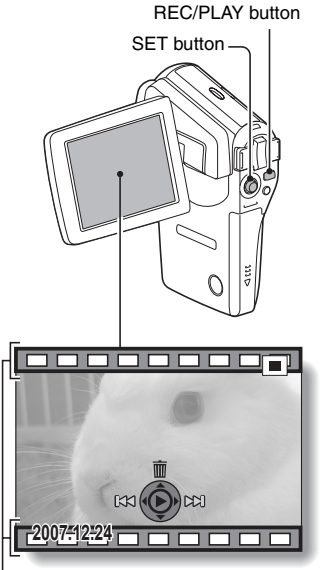
1 **Press the REC/PLAY button.**
- The display switches to the Playback Screen.
- Toggle the SET button to the left or right to display the video clip you wish to play back.
- Video clips are indicated by a video clip pattern along the top and bottom of the screen.

2 **Press the SET button.**
- Playback of the selected video clip begins.

■Still image playback

1 **Press the REC/PLAY button.**
- The display switches to the Playback Screen.
- To view other images, toggle the SET button to the left or right.

<To return to the Shooting Screen>
- Press the REC/PLAY button.



<Example: After recording a video clip>

When you are finished using the camera...

Press the ON/OFF button for at least 1 second to turn the camera off.

Burn your recorded video clips onto a DVD (Windows XP)

Using the supplied CD-ROM (SANYO Software Pack), you can import the captured images to your computer and store them on a DVD. Detailed information about the SANYO Software Pack can be found on page 4 in the SANYO Software Pack INSTRUCTION MANUAL.

Install application programs

1 **Set the supplied CD-ROM (SANYO Software Pack) in your computer's CD-ROM drive.**
- The installation window opens.

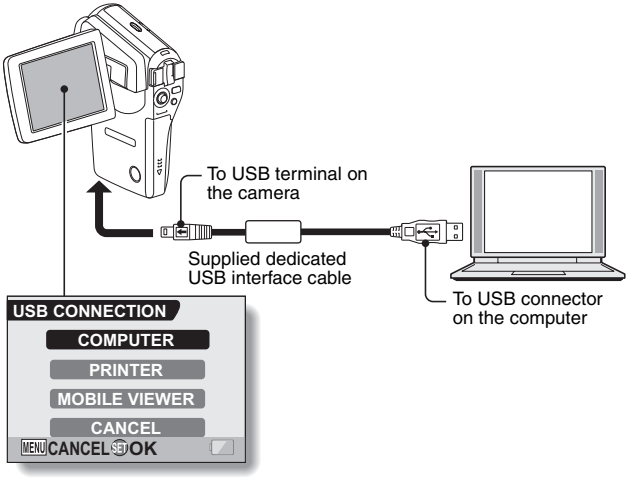
2 **Click on the application program you wish to install.**
- Install the application program with which you can import images to a computer (Photo Explorer).
- Install the application program with which you can create DVDs (MovieFactory).*
- After clicking on an application program, follow the instructions shown on the monitor to install the program.
- When the installation is complete, the product registration window will appear, but click on the Exit button to close the window.

* Not included with model VPC-CG65PX.

3 **In the installation window, click on [Finish] and remove the CD-ROM from the computer's CD-ROM drive.**
<About the Kodak online service>
- When the installation window closes, a dialog box to connect to the website introducing Kodak's online service appears. Check the [No thanks !] option button, and then click on the [OK] button.

Connect your camera to a computer

Use the supplied dedicated USB interface cable to connect your camera to a computer (page 6 in the SANYO Software Pack INSTRUCTION MANUAL).



Copy a video clip to your computer

Run Photo Explorer, set the location of the camera's data as the copy source, and copy the video clip(s) to your computer (page 16 in the SANYO Software Pack INSTRUCTION MANUAL).

Burn video clips onto a DVD

1 **Click on your desktop's [DVD MovieFactory 5 for Sanyo] icon to run MovieFactory.**

- The MovieFactory launcher appears.
- If the product registration screen appears, select [Register Later].

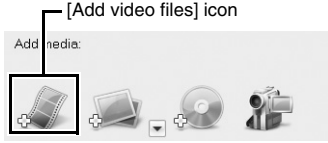
2 **Click on [New Project].**
- The [Create Video Disc] window opens.

Create Video Disc
Create a Video Disc
Select to create a DVD similar to Hollywood DVDs. The resulting disc will be in the DVD-Video format.
DVD
VCD
SVCD
Create an Editable Disc (30MB limitation on menu)
Select to create an editable DVD with a limit on the menu file size. The resulting disc will be in the DVD+VR format.
DVD+VR
OK
Cancel

3 **Set the [DVD] option to ON, and click on the [OK] button.**

- The [Select source and import] window opens.

4 **Click on the [Add video files] icon.**



- The [Open Video File] dialog box opens.
- Open the folder that contains the video files (My Documents\SANYO_PEX\datefolder).

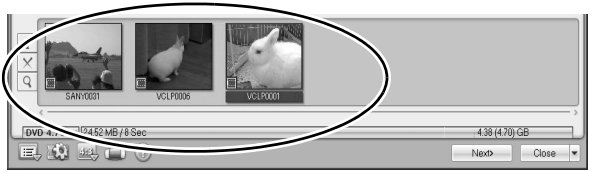
5 **Select the video clip files to burn onto the DVD.**

- Select the files you wish to burn onto the DVD by clicking on them.
- To select multiple files, click on the individual files while holding down the [Ctrl] button. If you select one file, hold down the [Shift] button and click on another file in the list, all the files in between are also selected.

6 **Click on the [Open] button.**
<When one video clip is selected>
- The [Open Video File] dialog box closes.

<When multiple video clips are selected>
- The [Rearrange clip order] dialog box opens.
- You can drag the clip file names to change the video clip playback order.
- Click on the [OK] button, and the [Rearrange clip order] dialog box closes.

- The file selected in step **5** appears in the [Add/Edit Media] window.

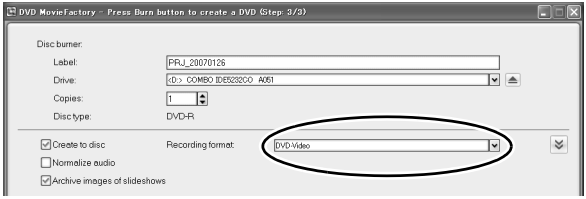


7 **Click on the [Next] button.**
- The window to edit the title page of your DVD appears.

8 **Set your desired title page, and click on the [Next] button.**
- The window to confirm the title page appears.

9 **Click on the [Next] button.**

- The window to export the video files to the DVD appears.



10 **Set the [Recording format] to [DVD-Video].**

11 **Set a blank DVD in your computer's disc burner, and click on the [Burn] icon.**

- A confirmation dialog box appears.

12 **Click on the [OK] button.**

- Disc writing begins.
- After burning the disc, a dialog box shows that burning is complete.

13 **Click on the [OK] button.**

- The DVD drive tray opens for you to remove the disc.

<About saving projects>

- After burning a disc, a save project dialog box appears. If you wish to use the settings for the current project in subsequent projects, you should save them. If you will not use the settings in subsequent projects, it is not necessary to save them.

14 **Click on the [OK] button.**
- You are returned to the MovieFactory launcher.

15 **Click on the exit MovieFactory button [×].**
- The DVD is completed.
- MovieFactory is exited.

How was that? The convenient accessories not only let you immediately view images captured with the camera, but you can also upload images to your computer and create your original DVDs. Read the following explanations to find out how you can fully enjoy your camera's digital movie feature.

CONTENTS

CONTENTS 1
QUICK SEARCH BY OPERATION 5
CHECKING THE INCLUDED ACCESSORIES 9
How to use the accessories 11
Media cards that can be used with this camera 14
SPECIAL FEATURES 15
Movable monitor for any shooting angle 15
Capture still shots while recording a video clip 16
Easy to shoot vertically oriented photos 16
Lots of accessories for optimal use of your captured images 17
SYSTEM MAP 18

■ **SETUP**

PARTS NAMES 19
CHARGING THE BATTERY PACK 21
Recharging the battery pack 23
INSTALLING THE BATTERY PACK AND CARD 24
Install the battery pack 24
Install the card 27
TURNING THE CAMERA ON AND OFF 28
Turning on the camera 28
Turning on the camera when the power save (sleep) function is active 28
Turning off the camera 29
OPERATION BUTTONS 30
DATE AND TIME SETTING 32
SCREEN DISPLAY 35

■ **BASIC OPERATION**

BEFORE TAKING PICTURES 37
For best results 37
Using the autofocus 38
Switching between the shooting mode and playback mode 40
Switching the display mode 41
Hints for taking pictures 42
VIDEO CLIP RECORDING AND PLAYBACK 43
Recording video clips 43
Playing back a video clip 44

CAPTURING AND PLAYING BACK STILL IMAGES 47
Shooting still images 47
Viewing still images 49
9-image display playback 50
Art mode playback 51
Selecting the playback folder 52
Magnifying (zooming in) the image 53
SHOOT A STILL IMAGE WHILE RECORDING A VIDEO CLIP 54
AUDIO RECORDING AND PLAYBACK 55
Audio recording 55
Audio data playback 57
USING THE ZOOM 59
EXPOSURE CORRECTION 60

■ SHOOTING

DISPLAYING THE RECORDING MENU 61
Switching the page 62
Overview of the RECORDING MENU 63
IMAGE QUALITY 67
Video clip image quality setting 67
Still image resolution setting 68
SCENE SELECT 69
FILTERS 71
SETTING THE FLASH MODE 72
SELF-TIMER 74
MOTION COMPENSATION (IMAGE STABILIZER) 76
FOCUS RANGE 78
How to use the manual focus 79
FOCUS AREA SETTING 80
LIGHT-MEASURING MODE SETTING 81
ISO SENSITIVITY 82
WHITE BALANCE 84

■ PLAYBACK

DISPLAYING THE PLAYBACK MENU 85
Switching the page 86
Overview of the PLAYBACK MENU 87
PLAYBACK MODE 89
SLIDESHOW PLAYBACK 91
PLAYBACK VOLUME 93
IMAGE PROTECT 94
DELETING DATA 96
COPY DATA 98
ROTATE IMAGE 100

CONTENTS

CHANGING IMAGE SIZE (RESIZE) 101
CORRECTING CAMERA SHAKE AND RED-EYE EFFECT 102
EDITING VIDEO CLIPS 104
Procedure to cut (extract) a portion of a video clip 104
Procedure to join video clips 105
Procedure to extract a still image 106
Video clip cutting (extracting) 107
Joining two video clips 110
Extracting a still image from a video clip 113
PRINTING INSTRUCTIONS 114
Display the Printing Instructions Screen 114
Specifying date imprinting and print quantities 116
Index print 118
Clearing all the printing instructions 119
SMOOTH PLAYBACK 120
DISPLAYING IMAGE PROPERTIES (INFORMATION SCREEN) 121

■ OPTION SETTINGS

DISPLAYING THE OPTION MENU 122
Overview of the OPTION MENU 123
SELECT THE STARTUP DISPLAY 125
OPERATION SOUNDS 126
POST-VIEW SETTING 129
WIND NOISE REDUCTION 130
NOISE-REDUCTION FUNCTION 131
ADJUST THE IMAGE QUALITY 132
FLICKER-REDUCTION 133
DIGITAL ZOOM SETTING 134
ASSIGN SET BUTTON FUNCTIONS 135
MONITOR BRIGHTNESS 137
SCREEN LANGUAGE 138
TV SYSTEM SETTING 139
POWER SAVE FUNCTION 140
FILE NO. RESET FUNCTION 142
INITIALIZING THE CARD MEMORY AND INTERNAL MEMORY 145
RESETTING THE CAMERA SETTINGS 147
CHECKING THE REMAINING INTERNAL AND CARD MEMORY ... 148
Checking the remaining number of images and video recording time 148
For audio data 148
CHECKING THE REMAINING BATTERY PACK CHARGE 149

■ OTHER DEVICES AND CONNECTIONS

CONNECTING TO A TV 151
CONNECTING HEADPHONES 152
DIRECT PRINTING 153
Print preparations 153
To select one image and print it (one image) 155
To print all the images (all images) 156
Thumbnail prints (index) 157
To print images according to the printing instructions (print requested images) 158
To change the printer settings and print images (change printer settings) 159

■ APPENDICES

COMMONLY ASKED QUESTIONS 161
TROUBLESHOOTING 168
Camera 168
Notes regarding the Scene Select feature and filters 176
SPECIFICATIONS 178
Camera 178
Camera connectors 182
Battery life 182
Possible No. of Images/Possible Shooting Time/ Possible Recording Time 183
Concerning the multi-indicator 184
Supplied battery pack charger 185
Supplied Li-ion battery pack 185
Others 186
Before capturing those important shots, be sure to first take a test shot to comfirm that your camera is set up and ready to go 187
HINTS FOR TAKING PICTURES 188

QUICK SEARCH BY OPERATION

Your camera has an abundance of convenient features and functions. From creating precisely the photo you want, to viewing images using various techniques, you can locate the exact operation for your purposes in the following table.

<table>
<tr><th colspan="3">Shooting/recording</th></tr>
<tr><th>Basic operation</th><th>Convenient functions</th><th>Additional functions</th></tr>
<tr><td>Getting started shooting/recording
• “Recording video clips” on page 43
• “Shooting still images” on page 47
• “SHOOT A STILL IMAGE WHILE RECORDING A VIDEO CLIP” on page 54
• “AUDIO RECORDING AND PLAYBACK” on page 55</td><td>Log the date and time of your photos
• “DATE AND TIME SETTING” on page 32
• “SCREEN DISPLAY” on page 35
Zoom in on the subject
• “USING THE ZOOM” on page 59
Close-up photography
• “FOCUS RANGE” (super macro mode) on page 78
Compensate for camera shake in video clips
• “MOTION COMPENSATION (IMAGE STABILIZER)” on page 76</td><td>For more accurate focus
• “How to use the manual focus” on page 79
Set the focus to a narrow range
• “FOCUS AREA SETTING” on page 80
Take vertical (portrait) format photos
• “Still image resolution setting” on page 68</td></tr>
<tr><td>Optimize the photo quality
• “Video clip image quality setting” on page 67
• “Still image resolution setting” on page 68</td><td colspan="2">Reduce video clip flicker
• “FLICKER-REDUCTION” on page 133
Set the camera’s color/contrast characteristics
• “ADJUST THE IMAGE QUALITY” on page 132</td></tr>
</table>

<table>
<tr><th colspan="3">Shooting/recording</th></tr>
<tr><th>Basic operation</th><th>Convenient functions</th><th>Additional functions</th></tr>
<tr><td colspan="3">Capture fast-moving subjects
• “SCENE SELECT” (sports mode) on page 69</td></tr>
<tr><td colspan="3">Shoot in bright conditions
• “EXPOSURE CORRECTION” on page 60
• “SETTING THE FLASH MODE” on page 72
• “SCENE SELECT” (night view portrait mode/fireworks mode/lamp mode) on page 69</td></tr>
<tr><td></td><td colspan="2">Increase the camera’s sensitivity
• “ISO SENSITIVITY” on page 82</td></tr>
<tr><td colspan="3">Photographing people
• “SCENE SELECT” (portrait mode/night view portrait mode) on page 69
• “FILTERS” (cosmetic filter) on page 71</td></tr>
<tr><td colspan="3">Photographing landscapes
• “SCENE SELECT” (landscape mode) on page 69</td></tr>
<tr><td colspan="3">Take a self-photo
• “SELF-TIMER” on page 74</td></tr>
<tr><td rowspan="2"></td><td>Make images lighter or darker
• “EXPOSURE CORRECTION” on page 60</td><td>Measure the brightness of a specific area
• “LIGHT-MEASURING MODE SETTING” on page 81
Adjust the camera’s sensitivity
• “ISO SENSITIVITY” on page 82</td></tr>
<tr><td>Change the color of the images
• “FILTERS” (monochrome filter/sepia filter) on page 71</td><td>Make white appear natural
• “WHITE BALANCE” on page 84</td></tr>
</table>

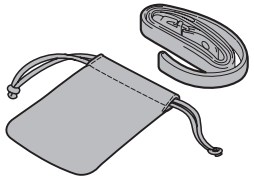
QUICK SEARCH BY OPERATION

<table>
<tr><th colspan="3">Playback</th></tr>
<tr><th>Basic operation</th><th>Convenient functions</th><th>Additional functions</th></tr>
<tr><td>Getting started viewing images
• “Playing back a video clip” on page 44</td><td>Adjust the speaker volume
• “PLAYBACK VOLUME” on page 93
• “CONNECTING HEADPHONES” on page 152</td><td>Smooth out video clip playback
• “SMOOTH PLAYBACK” on page 120</td></tr>
<tr><td>• “Viewing still images” on page 49</td><td>Search for image/ audio data
• “9-image display playback” on page 50
Magnify an image
• “Magnifying (zooming in) the image” on page 53</td><td>Change the angle of view
• “ROTATE IMAGE” on page 100
A unique playback format
• “Art mode playback” on page 51</td></tr>
<tr><td>• “Audio data playback” on page 57</td><td colspan="2">Adjust the speaker volume
• “PLAYBACK VOLUME” on page 93
• “CONNECTING HEADPHONES” on page 152</td></tr>
<tr><td colspan="3">Continuous playback
• “PLAYBACK MODE” on page 89
• “SLIDESHOW PLAYBACK” on page 91</td></tr>
<tr><td colspan="3">Adjust the monitor brightness
• “MONITOR BRIGHTNESS” on page 137</td></tr>
<tr><td colspan="2">Playback on a TV
• “CONNECTING TO A TV” on page 151</td><td>Set the TV system
• “TV SYSTEM SETTING” on page 139</td></tr>
</table>

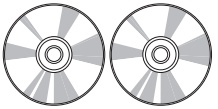
<table>
<tr><th colspan="3">Data managing/processing</th></tr>
<tr><th>Basic operation</th><th>Convenient functions</th><th>Additional functions</th></tr>
<tr><td colspan="3">Search for image/audio data
• “9-image display playback” on page 50</td></tr>
<tr><td colspan="3">Copy files from the internal memory to the card, or vice versa
• “COPY DATA” on page 98</td></tr>
<tr><td>Delete data
• “DELETING DATA” on page 96</td><td colspan="2">Protect images from accidental erasure
• “IMAGE PROTECT” on page 94
Format a card
• “INITIALIZING THE CARD MEMORY AND INTERNAL MEMORY” on page 145</td></tr>
<tr><td colspan="3">Edit still images
• “CORRECTING CAMERA SHAKE AND RED-EYE EFFECT” on page 102</td></tr>
<tr><td colspan="3">Delete a part of a video clip and join video clips
• “EDITING VIDEO CLIPS” on page 104</td></tr>
<tr><td colspan="3">Specify the number of prints, index prints, and date imprinting
• “PRINTING INSTRUCTIONS” on page 114</td></tr>
<tr><td colspan="3">View the settings that were in effect when the image/audio data was recorded
• “DISPLAYING IMAGE PROPERTIES (INFORMATION SCREEN)” on page 121</td></tr>
</table>

CHECKING THE INCLUDED ACCESSORIES

- **Neckstrap and soft case (pages 11 and 13): 1 set**

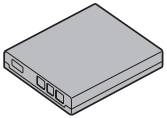


- **SANYO Software Pack (CD-ROM) (page 4 in the SANYO Software Pack INSTRUCTION MANUAL): 2***

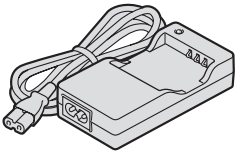


*** VPC-CG65PX: 1 disc**

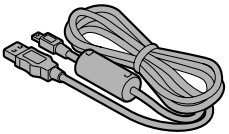
- **Li-ion battery pack (pages 21 and 24): 1**



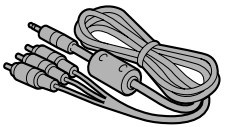
- **Lithium-ion battery pack charger and power cord (page 21): 1**



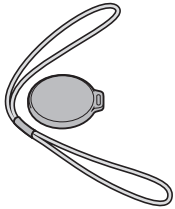
- **Dedicated USB interface cable (page 153, pages 8 and 24 in the SANYO Software Pack INSTRUCTION MANUAL): 1**



- **Dedicated AV interface cable (page 151): 1**

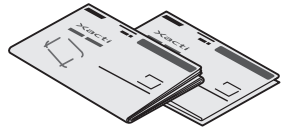


- **Lens cap and strap: 1**



- **SAFETY MANUAL (safety precautions booklet) Please read this booklet carefully before using the camera.**

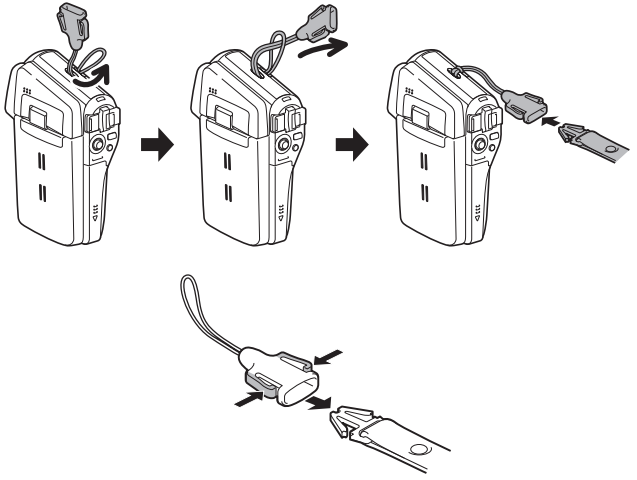
- **QUICK GUIDE**



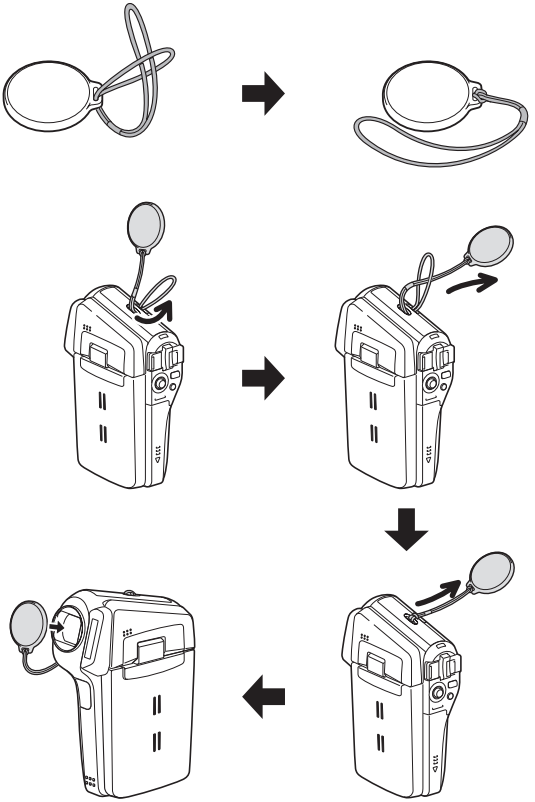
CHECKING THE INCLUDED ACCESSORIES

How to use the accessories

■ **Neckstrap**

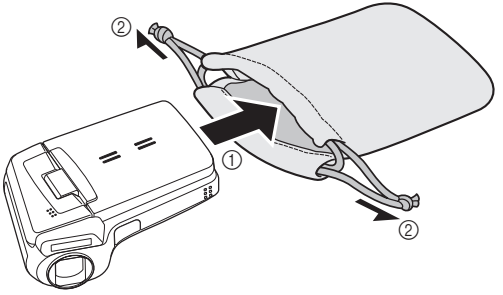


■ **Lens cap**



CHECKING THE INCLUDED ACCESSORIES

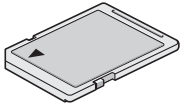
■ **Soft case**



Media cards that can be used with this camera

The type of card that can be inserted into and used with this camera is:

- SD Memory Card

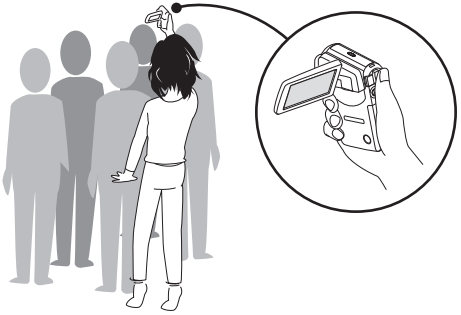


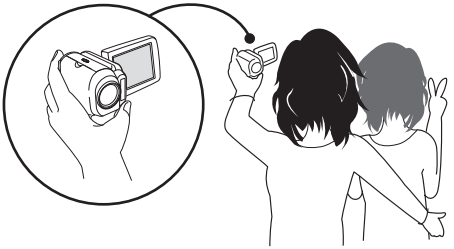
SPECIAL FEATURES

Your movie camera can not only record video clips, you can also take still photos and make audio recordings. For example, you can snap a still image while recording a video clip, or make just an audio recording.

Movable monitor for any shooting angle

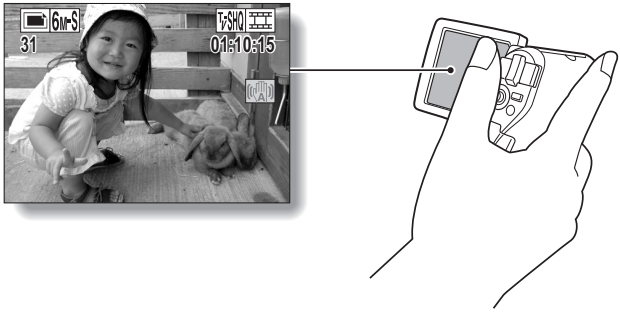
The movable LCD monitor lets you shoot from any angle. Hold the camera high to get a great view of a parade, or swivel the monitor around to snap a photo of yourself.





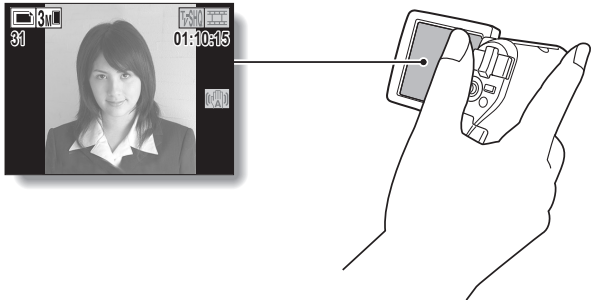
Capture still shots while recording a video clip (page 54)

Suppose that while you're recording a video clip, there's a scene you'd like to keep as a still photo. Your camera makes it possible to record the still photo without interrupting the video clip recording.



Easy to shoot vertically oriented photos (page 68)

A grip-type camera is compact and very easy to hold securely, but trying to take vertically oriented photos by changing the camera angle is a problem. However, your camera features a vertical shooting mode that allows you to take vertical (portrait) mode still images without having to change the camera angle.



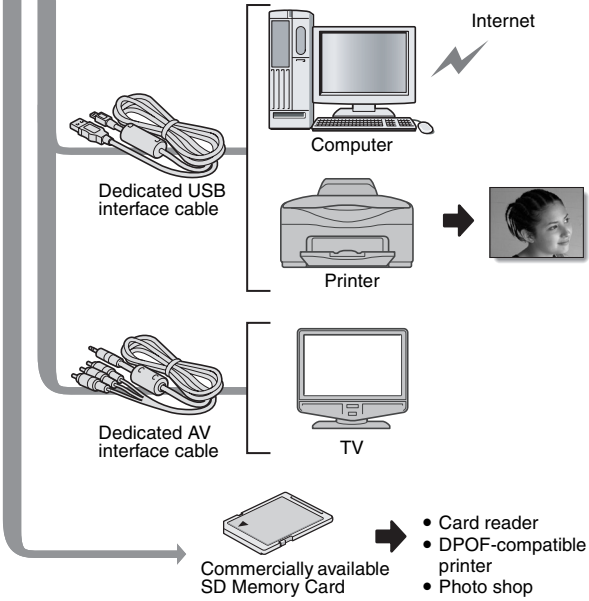
SPECIAL FEATURES

Lots of accessories for optimal use of your captured images (page 18)

Use the accessory cables to view images on a TV or computer. Or connect the camera directly to a printer to make prints of your photos. And with the software in the supplied CD-ROM (SANYO Software Pack), you can create your original DVDs and CDs.*
*** Not included with model VPC-CG65PX.**

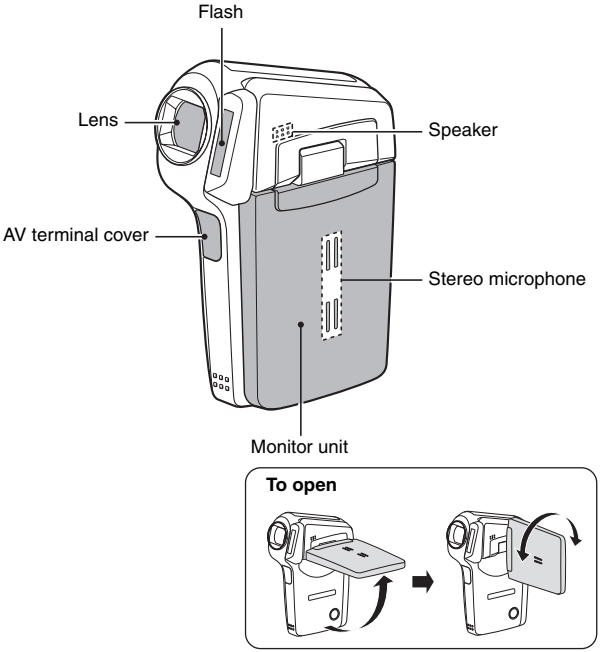
SYSTEM MAP

You can connect the camera to various devices to expand its capabilities.

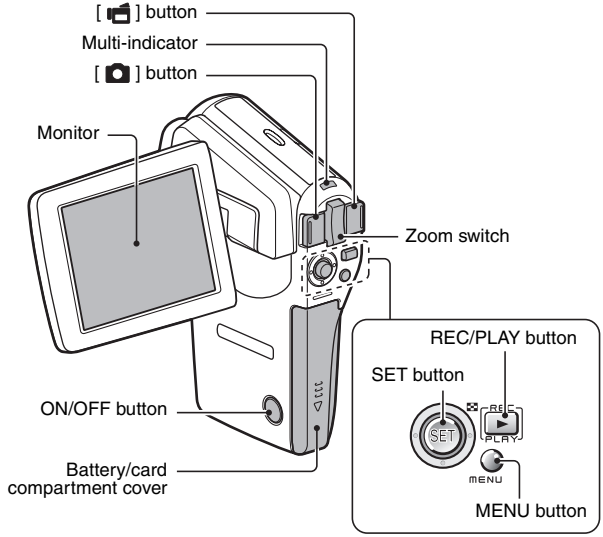


PARTS NAMES

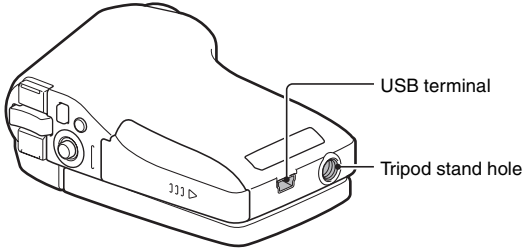
Front



Rear


[ ] button
Multi-indicator
[ ] button
Monitor
Zoom switch
REC/PLAY button
SET button
ON/OFF button
Battery/card compartment cover
SET
REC
PLAY
MENU
MENU button

Bottom


USB terminal
Tripod stand hole

CHARGING THE BATTERY PACK

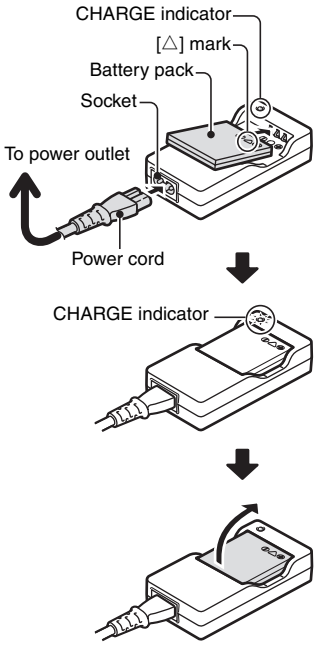
Please charge the supplied battery pack before using it.

1 **Insert the battery pack in the battery charger.**
- Insert it in the direction indicated by the [△] mark on the battery pack.

2 **Connect the supplied power cord to the socket on the battery pack charger.**
- Insert the connector straight and securely.

3 **Plug the power plug into a power outlet (AC 100 V to 240 V).**
- Recharging begins.
- During recharge, the CHARGE indicator is lit red.
- The recharge time is approx. 90 minutes.

4 **When the CHARGE indicator turns off, unplug the power cord from the power outlet, and remove the battery pack from the charger.**



HINT

Recharging when connected to the USB terminal (page 9 in the SANYO Software Pack INSTRUCTION MANUAL)

- The battery can be recharged while the camera is connected to a computer.
- Note, however, that the time it takes to recharge will differ depending on the camera's operating condition.
- Connect the dedicated USB interface cable to the USB connector on your computer. Do not connect it to the USB connector on the monitor or the keyboard, or to the USB hub.
- When the surrounding temperature is high, depending on the camera's operating condition and the battery pack temperature, in some cases the multi-indicator may slowly flash red and the battery pack cannot be charged.
- If the camera is not going to be used for an extended period of time, please disconnect the dedicated USB interface cable from the camera.

CHARGING THE BATTERY PACK

Recharging the battery pack

Be sure to fully charge the supplied or separately sold battery pack before using it in your camera. For charging the battery pack, use the supplied charger.
Charge the battery pack if it is being used for the first time, and recharge it whenever the remaining charge is low (see "CHECKING THE REMAINING BATTERY PACK CHARGE" on page 149).

If there is interference to your TV or radio during recharging...
- Move the battery pack and charger further away from the TV or radio.

Ambient temperature during recharging
- During recharging, the charger and battery pack will be warm. This is normal and does not indicate a malfunction.
- It is recommended that the ambient temperature during recharging be between about 0 °C and 40 °C (32°F and 104°F). Due to the characteristics of the battery pack, at temperatures below 0 °C (32°F), it may not be possible to sufficiently recharge it.
- When the battery pack temperature is high, it may take longer to recharge it.

Recharge a battery pack in the following cases
- A battery pack which has not been used for a long time
- Newly purchased battery pack

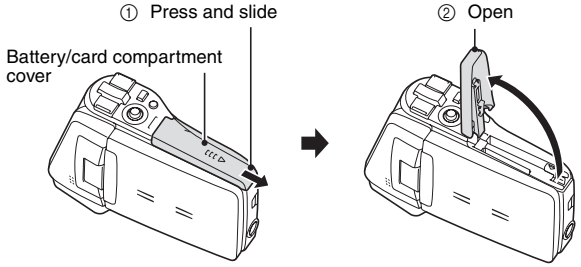
INSTALLING THE BATTERY PACK AND CARD

Make sure that the battery pack and the card orientation are correct.

Install the battery pack

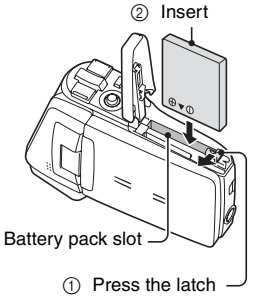
1 **Open the battery/card compartment cover.**

- While gently pressing the cover, slide it open.



2 **Insert the battery pack.**

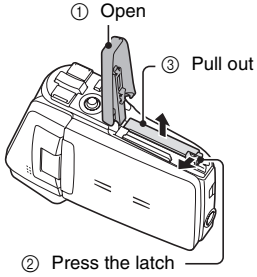
- Press the latch, insert the battery pack, and firmly push it all the way in.



INSTALLING THE BATTERY PACK AND CARD

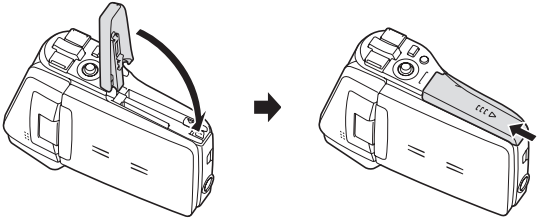
<To remove the battery pack...>

- Press the latch securing the battery pack, and remove the battery pack.



3 Close the battery/card compartment cover.

- Lower the cover, and slide it closed.
- At the time of purchase the battery pack is not charged. Be sure to fully charge the battery pack (page 21).



CAUTION

Do not charge the battery pack immediately after the camera has been in continuous use for a long time

- The battery pack becomes hot when the camera is used continuously for a long time. If you attempt to charge the battery pack in this state, the charge indicator may flash red and it may not be possible to charge the battery pack. Wait until the battery pack has cooled down before attempting to charge it.

Does the battery pack appear swollen?

- The lithium-ion battery used in this camera may expand slightly when stored in a hot environment or repeatedly used, but this is not a safety hazard.

HINT

About the internal backup battery

- This camera's internal battery serves to maintain the date and time settings, as well as the shooting settings. The backup battery will be fully charged when the battery pack is kept in the camera continuously for about 2 days. In the fully charged state, the backup battery will maintain the camera settings for about 7 days.

When not using the camera for a long time, remove the battery pack

- A small amount of power is still used even if the camera is turned off, and it is therefore recommended that the battery pack be removed from the camera if it is not going to be used for a long time. Note that when the battery pack is removed for a long period, the time and date settings may be cleared. Before using your camera again, be sure to confirm that the camera settings are correct.

To prolong the life of the battery pack

- Although the battery pack is an expendable item, you can maximize the life of the battery by heeding the following suggestions.
  - Do not leave the battery under the hot summer sun or exposed to other high-temperature environments.
  - Do not continually recharge the battery when it is already fully charged. After fully charging it once, for example, use it for a while to partially discharge it before recharging it again.
  - When the battery is not to be used for a long time, if possible store the partially charged (not fully charged) battery in a cool environment.

INSTALLING THE BATTERY PACK AND CARD

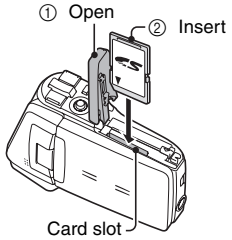
Install the card

The card can be used after it has been formatted with the camera (page 145).

1 **Open the battery/card compartment cover.**

2 **Insert the card.**

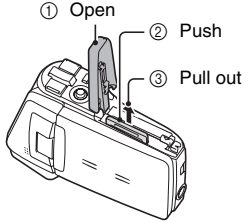
- Firmly insert the card until it clicks into place.



3 **Close the battery/card compartment cover.**

<When removing the card...>

- To remove the card, press it down, and then release. The card will protrude slightly, and you can then pull it out.



CAUTION

Do not attempt to forcibly remove the card.

- Never remove the card when the multi-indicator is flashing red. In doing so, you risk losing the data stored in the card.

HINT

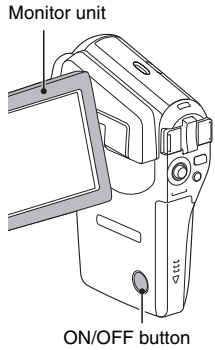
Shooting without a card installed

- When a card is installed, images are recorded to and played back from the card. When no card is installed, images are recorded to and played back from the camera's internal memory. When the camera is turned on with no card installed, the internal memory icon is shown on the monitor to let you know that the images you capture will be saved to the camera's internal memory.

TURNING THE CAMERA ON AND OFF

Turning on the camera

1 **Open the monitor unit, and press the ON/OFF button for at least 1 second.**
- If you press the REC/PLAY button for at least 1 second, the camera turns on in the playback mode.
- If you press the ON/OFF button once, the camera will switch to the power save mode.



Turning on the camera when the power save (sleep) function is active

In order to preserve battery pack power, the power save (sleep) function will automatically turn off the camera after 1 minute of no use during shooting, or 5 minutes of no use during playback (factory-preset setting).

- When the power save function is active, you can restore the power by any of the following methods:
  - **Press the ON/OFF button.**
  - **Press the [📷]/[🎥] button.**
  - **Open the monitor unit.**
  - **Press the SET button.**
- The camera will switch to the standby mode after the power save function has been active for about 1 hour, or when you close the monitor unit.
- The power save mode will not be activated while you are recording.
- The user can specify the time elapsed before the power save function is activated (page 140).
- When the camera is connected to a computer or printer using the dedicated USB interface cable, the power save function is disabled, and the camera turns off after about 12 hours.

TURNING THE CAMERA ON AND OFF

Turning off the camera

1 **Press the ON/OFF button for at least 1 second.**
- The camera turns off.
- To turn off the camera while it is in the shooting mode or power save mode, close the monitor unit or press the ON/OFF button for at least 1 second.

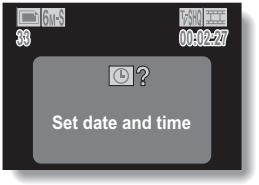
HINT

To immediately activate the power save function
- Press the ON/OFF button briefly to active the power save function.

If the date and time setting has been completed (page 32)...
- The current time is shown on the monitor when the camera is turned on.

CAUTION

If the [clock?] icon appears...
- When a picture is taken, the date and time it was captured are recorded with it. If the date and time settings have not been completed (page 32), the date and time cannot be recorded with the captured images. For this reason, immediately after the camera is turned on, the “Set date and time” reminder briefly appears, after which the [clock?] icon is shown on the Shooting Screen. To have the date and time recorded with the images, please complete this setting before capturing images.

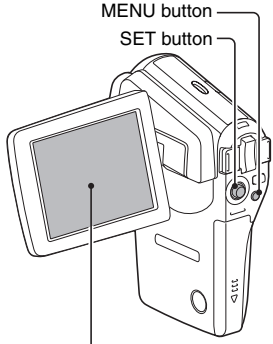


OPERATION BUTTONS

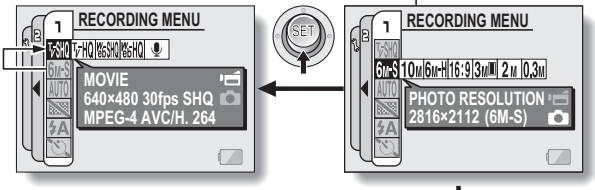
The procedures to change the camera settings, choose images, etc., are performed by using the SET button to control the monitor display. This operation is used very frequently, so it is best to become familiar with it right away.

1 **Turn on the camera (page 28).**

2 **Press the MENU button.**
- The Menu Screen appears.



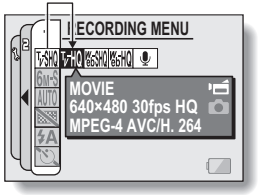
<Select the icon above or below>
To select the icon above, toggle the SET button up.



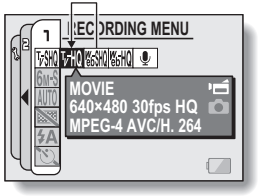
To select the icon below, toggle the SET button down.

OPERATION BUTTONS

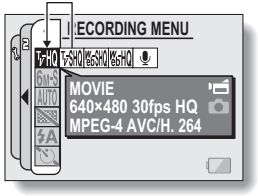
<Select the icon to the left or right>
To select the icon to the right, toggle the SET button to the right.



To select the icon to the left, toggle the SET button to the left.



<Actuate the selected icon>
Press the SET button. The selected icon moves to the left end of the lineup.



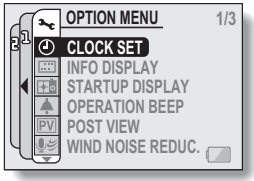
DATE AND TIME SETTING

The camera will record the date and time an image or audio recording is taken so that you can display them during playback. Therefore, before capturing images, make sure the correct date and time are set.

Example: To set the clock to 7:30 p.m. on December 24, 2007

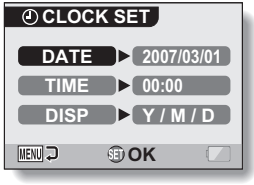
1 **Turn on the camera (page 28), and press the MENU button.**
- The RECORDING MENU or PLAYBACK MENU appears.

2 **Toggle the SET button to the left two times to display the OPTION MENU.**
- The OPTION MENU is canceled if the MENU button is pressed.



<OPTION MENU>

3 **Select the clock set icon [⏲], and press the SET button.**
- The Clock Set Screen appears.
- The current date and time settings are shown.
- Follow the procedures below to enable or disable the date display during playback, to set the display format for the date, and to set the date and time.
- To return to the OPTION MENU, press the MENU button.

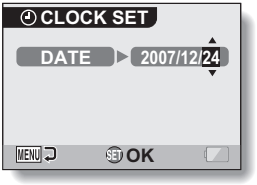


4 **Set the date.**

① Select “DATE”.
② Press the SET button.
- The Set Date Screen appears.

③ Set the date to “2007/12/24”.
- The date is set in the following order: Set the year → Set the month → Set the day.
- Toggle the SET button left or right to select year, month or day. Toggle the SET button up or down to increase or decrease the number.

④ Press the SET button.

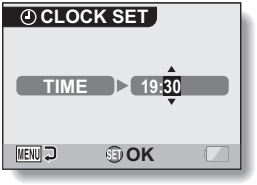


5 **Set the clock.**

① Select “TIME”.
② Press the SET button.
- The Set Time Screen appears.

③ Set the time to “19:30”.
- The time is set in the following order: Set the hour → Set the minute.
- A 24-hour clock is used for the time display.

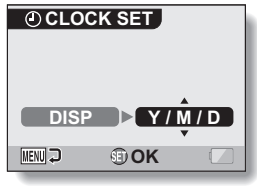
④ Press the SET button.



6 Set the order in which the date is displayed during playback.

① Select “DISP”.
② Press the SET button.
- The Set Date Format Screen appears.

③ Toggle the SET button up or down.
- Toggle the SET button up to change the displayed date order as follows:



→ Y / M / D → M / D / Y → D / M / Y →

Toggle the SET button down to change it in the reverse order.

④ Press the SET button.

7 Press the MENU button.

- The date and time setting is completed, and you are returned to the OPTION MENU.
- To return to the Shooting Screen or Playback Screen, press the MENU button.

HINT

About the clock backup

- Under normal conditions, while the battery pack is being replaced, an internal battery will maintain the date and time settings. However, there is a small chance the settings may be lost. (The backup will last for about 7 days.) It is recommended to check that the date and time settings are still correct after replacing the battery pack and before shooting or recording of any type (follow steps **1** through **3**).

To change the date and time settings

- After steps **1** through **3**, select the item that you want to change, and change the value.

SCREEN DISPLAY

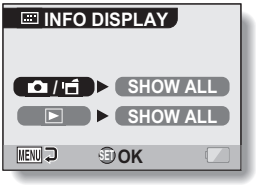
Specify how to switch the Shooting Screen display mode (page 41), and specify the screen display during playback.

1 **Display the OPTION MENU (page 122).**

2 **Select the info display icon [ ], and press the SET button.**

- The Screen Display Screen appears.

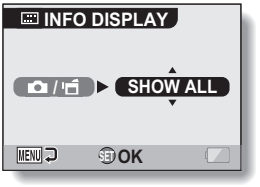
[/]:
Specify how to switch the Shooting Screen display mode.
[ ]:
Select the screen display that is shown during playback.



3 **Select the desired setting, and press the SET button.**

- The screen to select the settings appears.

When [/] is selected:
[ON/OFF]:
Use SET button to switch the display mode.
[SHOW ALL]:
The SET button does not switch the display mode. All the shooting settings are always shown on the Shooting Screen.



<[/] was selected>

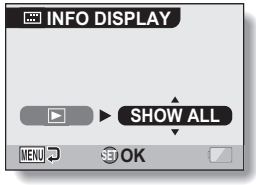
When [▶] is selected:

[OFF]:
Show only the images.

[DATE & TIME]:
Show the date and time (capture date).

[COUNTER]:
Show the counter.

[SHOW ALL]:
Show the date/time and the counter.



<[▶] was selected>

---

4 **Toggle the SET button up or down to select the desired setting, and press the SET button.**

- The screen display is set, and you are returned to the Screen Display Screen.

BEFORE TAKING PICTURES

For best results

Hold the camera securely, keeping your elbows close to your body and making sure the camera is stable.

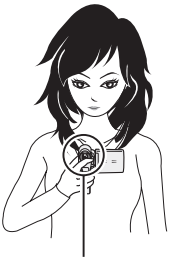
Correct hold

<Holding the camera>

Example 1:
Grip the camera by wrapping the fingers of the right hand, from the little finger to the middle finger, around the camera, and hook the index finger above the lens.

Example 2:
Grip the camera by wrapping the fingers of the right hand, from the little finger to the index finger, around the camera.

Incorrect hold



A finger is blocking the lens or flash.

Make sure that the lens and flash are not blocked by your fingers or the neckstrap.

* For shooting vertically oriented still images, you can set the shooting orientation to the vertical (portrait) format (page 68).

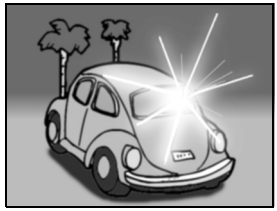
Using the autofocus

The autofocus will work in almost all situations; however, there are certain conditions that may cause the autofocus function to not work properly. If the autofocus function is not working properly, set the focus range to capture images (page 78).

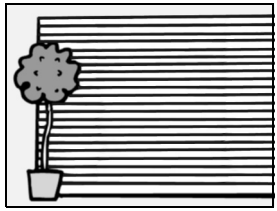
■ **Conditions that may cause incorrect focus**

The following examples are some of the situations where the autofocus function may not work.

- **Subjects with low contrast, very bright subjects at the center of the image or dark subjects or locations**
  Use the focus-lock function to lock the focus on an object with contrast at the same distance as the desired subject.



- **Subjects without vertical lines**
  Use the focus-lock function to lock the focus while framing the subject vertically, then re-orient the camera to compose a horizontally framed image.

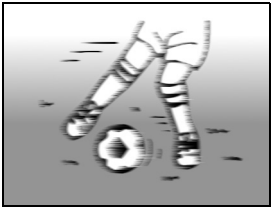


BEFORE TAKING PICTURES

The following examples are some of the situations where the autofocus function may work, but not as desired.

- **When both near and far objects are present**
  Use the focus-lock function to lock the focus on an object at the same distance as the desired subject, then reposition the camera to compose the picture.

- **Fast-moving subjects**
  Use the focus-lock function to lock the focus on an object at the same distance as the desired subject, then reposition the camera to compose the picture.



HINT

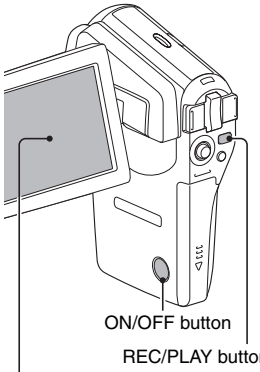
- Images captured in the still image shooting mode can be rotated when they are played back (page 100).
- When the [📷] button is pressed halfway, the image in the monitor may waver vertically. This is the result of internal image processing and is not a malfunction. This wavering is not recorded and will not affect your images in any way.
- When the optical zoom is used or when the autofocus is operating, the image may appear to waver, but this is not a malfunction.

Switching between the shooting mode and playback mode

1 **Press the ON/OFF button to turn the camera on (page 28).**

2 **Press the REC/PLAY button.**

- Each time the REC/PLAY button is pressed, the camera switches between the shooting mode and the playback mode.



<Shooting mode>

<Playback mode>

Switching the display mode

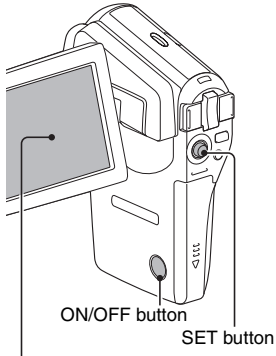
In the shooting mode, you can select either the “settings display mode” which allows you to confirm the shooting settings on the monitor while you shoot, or the “normal display mode” in which the setting indications are turned off, providing a full view of the subject.

1 **Press the ON/OFF button to turn the camera on (page 28).**

2 **On the Screen Display Screen (page 35), set the [/] setting to [ON/OFF].**

3 **Set the camera to the shooting mode (page 40), and press the SET button.**

- Each time the SET button is pressed, the camera switches between the settings display mode and the normal display mode.



<Settings display mode>

<Normal display mode>

Hints for taking pictures

Muting the operation sounds

- The operation sounds that are generated, for example, when the [📷] button, MENU button or SET button is pressed, as well as the audio guidance when you switch the mode, can be muted (page 126).

Where is the image and audio data saved?

- All the image and sound data is recorded in the camera's internal memory or on the card installed in the camera.
- When a card is installed in the camera, the data is recorded on the card. If no card is installed, the data is recorded in the camera's internal memory.

Taking pictures in backlight conditions...

- When taking pictures with the light coming from behind the subject, due to the characteristics of the lens, light lines or ghost patterns (flare phenomenon) may appear in the captured image. In this situation, it is recommended that you avoid taking pictures with the subject lit from behind.

While the image data is being recorded...

- While the multi-indicator is flashing red, the image data is being written to the memory, during which time it is not possible to capture another image. Another image can be captured after the flashing red indicator turns off. However, even when the multi-indicator is flashing red, depending on the camera's internal memory remaining capacity, in some cases the next image can be captured about 2 seconds after shooting.

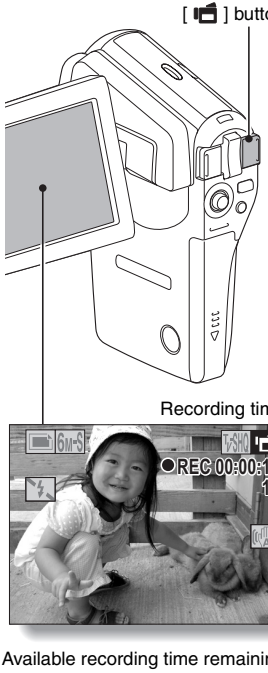
VIDEO CLIP RECORDING AND PLAYBACK

Recording video clips

1 **Turn on the camera (page 28).**

2 **Press the [ ] button.**
- Recording begins.
- It is not necessary to keep the [ ] button pressed while shooting.
- When the remaining recording time available for the currently recording clip becomes little, a countdown of the remaining recording time appears on the display.

3 **End the recording.**
- Press the [ ] button again to stop recording.



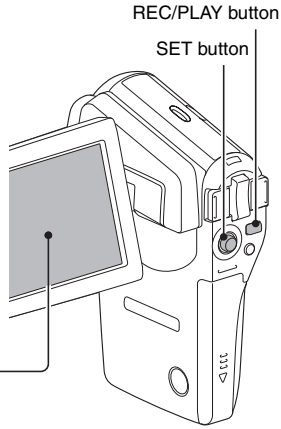
HINT

You can monitor the recorded sound
- By connecting headphones to the camera, you can monitor the sound while recording (page 152).

Playing back a video clip

4 **Press the REC/PLAY button.**
- The video clip just recorded is shown on the monitor.

5 **Press the SET button.**
- Playback of the video clip begins.



<To delete a video clip>
- Display the video clip you wish to delete, and toggle the SET button up. A screen to confirm the delete appears. Select “DELETE” and press the SET button to delete the video clip.

<To return to the Shooting Screen>
- Press the REC/PLAY button.

To do this...		Do this
Normal forward playback		Press the SET button.
Stop playback		During playback, toggle the SET button down.
Pause		During playback, press the SET button or toggle the SET button up. During accelerated playback, toggle the SET button up.
To play back one image at a time (single-frame step)	During forward playback	After pausing playback, toggle the SET button to the right.
	During reverse playback	After pausing playback, toggle the SET button to the left.*1
Slow playback	During forward playback	After pausing playback, press and hold the SET button to the right.*2
	During reverse playback	After pausing playback, press and hold the SET button to the left.*1
To accelerate playback	Forward playback	During forward playback, toggle the SET button to the right. * The playback speed changes each time the SET button is toggled to the right, as follows: Normal playback → 2× → 5× → 10× → 15× Toggle the SET button to the left to resume normal playback speed.
	Reverse playback	During forward playback, toggle the SET button to the left. * The playback speed changes each time the SET button is toggled to the left, as follows: 15× ← 10× ← 5× Toggle the SET button to the right to resume normal playback speed.
Return to normal playback speed		Press the SET button.
Adjusting the volume		**Louder:** During playback, push the zoom switch toward the [T] side. **Softer:** During playback, push the zoom switch toward the [W] side.

*1 Compared to forward playback, frame increments are larger for reverse playback.
*2 Slow playback begins from a point slightly before the pause point.

When you are finished using the camera...

- **Press the ON/OFF button to turn the camera off.**

HINT

You can play audio and video clips on your iPod

- Audio files and video clips that were recorded with your camera can be played back on an iPod. (Video clips that were recorded in the [T-SHOT] mode will need to be converted.)

Reducing battery consumption during audio/video recording

- Recording continues even when you close the monitor unit during audio or video recording. The monitor turns off when the monitor unit is closed, so battery consumption is reduced.

Adjusting the monitor brightness

- While the Shooting Screen is active, you can quickly access the screen for adjusting the brightness of the monitor by pressing the MENU button for at least 1 second.

The focus can be locked

- By assigning an operation shortcut to the SET button (page 135), you can set the autofocus to a fixed focus. When the autofocus is fixed, the [AF] icon appears on the monitor.
- When the focus range setting (page 78) is changed, the focus lock is released.

The data for a video clip is very large

- Therefore, be aware that if the video clip is uploaded to a computer to be played back, the computer may not be able to play back the video fast enough, making it appear jerky. (The video will always be displayed properly on the monitor or a television.)

Display the video clip playback point

- During video clip playback, press the MENU button for at least 1 second to display a bar showing the current playback point in the video clip.
- Press the MENU button for about 1 second to cancel the bar.

CAUTION

During video clip playback, the sound of a motor is audible...

- During recording, the sound of the optical zoom movement or autofocus movement was recorded. This is not a malfunction.

If no audio is heard...

- The audio is not played back when the video clip is played back in the frame-by-frame, fast playback or reverse playback mode.

CAPTURING AND PLAYING BACK STILL IMAGES

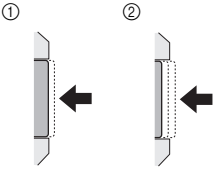
Shooting still images

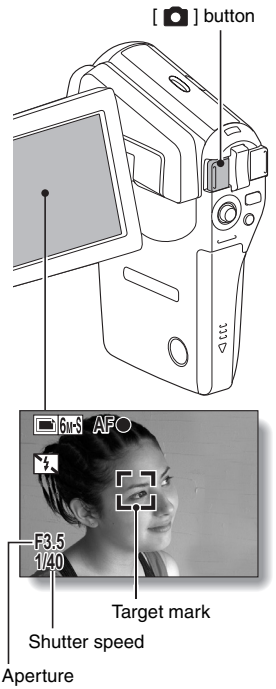
1 **Turn on the camera (page 28).**

2 **Press the [📷] button.**

① **Press the [📷] button halfway.**
- The autofocus operates, and the image is focused (focus lock).

② **Continue to gently press the [📷] button all the way.**
- The shutter releases and the image is captured.
- You can view the captured image on the monitor by keeping the [📷] button depressed when you capture the image (post-view [page 129]).





HINT

What is the camera focusing on?

- If the focus range (page 78) is set to a setting other than manual [MF], a target mark [ ] on the monitor shows the area the camera is focusing on.
- The camera automatically determines the correct focus by measuring from 9 different focus points within the shooting area. If the target mark is at a position that is different from the point you wish to focus on, you can refocus, for example, by changing the shooting angle.
- The large target mark appears when the camera focuses on a wide area in the center of the screen.

About the focus indicator

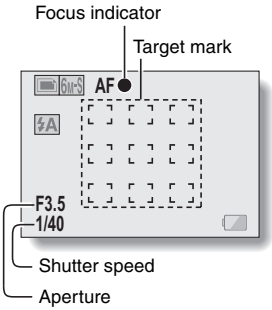
- A green focus indicator appears when the subject is successfully focused, or a red focus indicator when the camera was not able to focus the subject.

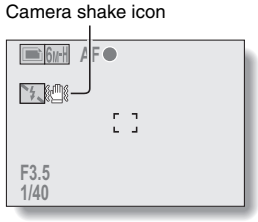
The shutter speed and aperture are displayed

- When the camera focuses and the target mark appears, at the same time, the shutter speed and aperture settings are also displayed. You can use them as a reference when shooting.

If the camera shake icon appears...

- During still image shooting, if the shutter speed is slow and the possibility that the image may be blurred due to camera shake becomes high, the camera shake icon may appear on the monitor. In this case, stabilize the camera when shooting, or set the flash operation mode to automatic (page 72).
- When shooting with the scene select function set to the fireworks [ ] mode, the camera shake icon always appears, but this is normal.





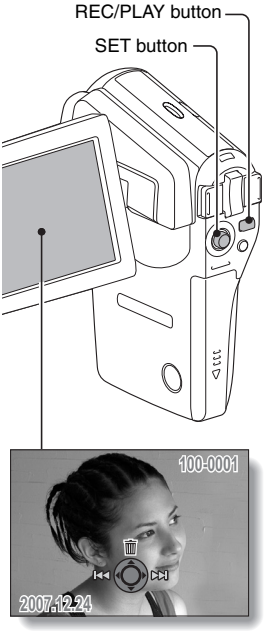
Viewing still images

3 **Press the REC/PLAY button.**
- The image just captured is shown on the monitor.

4 **Select the image you wish to view.**
To display the previous image, toggle the SET button to the left. To display the next image, toggle the SET button to the right.
- Display the desired image.

<To delete a still image>
- Display the still image you wish to delete, and toggle the SET button up. A screen to confirm the delete appears. Select "DELETE" and press the SET button to delete the still image.

<To return to the Shooting Screen>
- Press the REC/PLAY button.

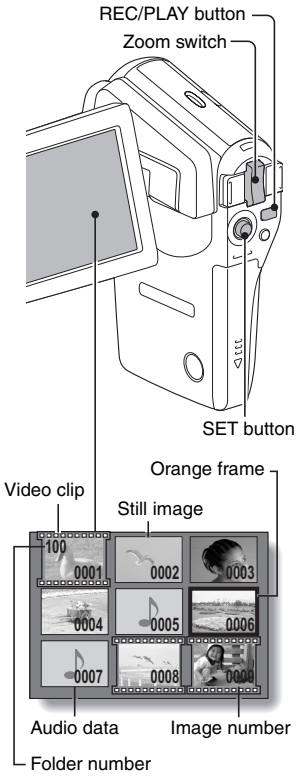


9-image display playback

1 **Press the REC/PLAY button to display the Playback Screen.**

2 **Push the zoom switch toward the [W] ([ ]) side.**
- The 9-image display appears.

3 **Select the image to play back.**
- Toggle the SET button up, down, left or right to move the orange frame to the desired image, and press the SET button to switch to normal (full-screen) playback of the selected image.
- If the zoom switch is pushed toward the [W] ([ ]) side while the 9-image display is shown, the camera changes to the art mode playback (page 51).



CAPTURING AND PLAYING BACK STILL IMAGES

Art mode playback

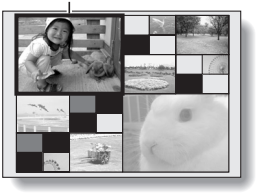
Art mode playback displays all 22 images that immediately follow the image currently shown on the normal display, or the framed image on the 9-image display.

1 **In normal playback, display an image (pages 44 and 49), or on the 9-image playback display, move the orange frame to select an image (page 50). This will be the largest image in the art mode playback display.**

2 **If switching to the art mode playback from normal playback, push the zoom switch toward the [W] ([ ]) side two times. Push it one time if switching from the 9-image playback display.**

- The screen changes to art mode playback.
- When the number of images is less than 22, the blank frames are filled in with color.

Orange frame



<Art mode playback screen operation>

Toggle the SET button up or down:
Select an image.

Press the SET button:
The selected image is displayed full-screen.

Press the MENU button:
The selected image is displayed full-screen, and the PLAYBACK MENU appears.

Toggle the SET button to the left or right:
The images before and after are displayed in random order.

Push the zoom switch toward the [T] ([ ]) side:
The screen changes to the 9-image display.

HINT

Some images are not displayed?

- The images from a single folder are displayed in art mode playback. To display images from a different folder, in step **1** select an image from the desired folder.

Selecting the playback folder

If the card or the internal memory contains multiple folders, you can select from which folder you would like to play back.

1 **Press the REC/PLAY button to display the Playback Screen.**

2 **Press the zoom switch toward the [W] ([ ]) side three times.**

- The screen to select the playback folder appears.
- If the zoom switch is pushed toward the [T] ([ ]) side, the camera changes to the art mode playback (page 51).

3 **Toggle the SET button up, down, left or right to move the orange frame to the desired folder, and press the SET button.**

- The data in the selected folder is displayed in the Playback Screen.

Magnifying (zooming in) the image

1 **Display the image that you want to magnify.**
- For a video clip, pause playback at the place you want to magnify.

2 **Push the zoom switch toward the [T] ([ ]) side.**
- Magnification is enabled.
- The image is magnified, and the central portion of image is displayed.
- Toggle the SET button to view different parts of the magnified image.

To magnify:
Magnification increases each time the zoom switch is pushed toward the [T] ([ ]) side.

To return to normal size:
Magnification decreases each time the zoom switch is pushed toward the [W] ([ ]) side.
- Press the SET button to return to the normal (100%) view.

HINT

The magnified portion of the image can be saved as a separate image.
- Press the [ ] button. The magnified portion is saved as a new still image.

SHOOT A STILL IMAGE WHILE RECORDING A VIDEO CLIP

You can capture a still image while recording a video clip.

1 **Turn on the camera (page 28).**

2 **Press the [ ] button.**
- Recording begins.

3 **When you see a scene you'd like to capture as a still image, press the [ ] button.**
- A still image is captured.

4 **End the recording.**
- Press the [ ] button to stop recording.

HINT

- When shooting a still image while recording a video clip, the flash does not operate.
- When shooting a still image while recording a video clip, the display briefly pauses, and then returns to the video clip display after the still image is captured.
- If the still image resolution is set to 10M or 3M, it automatically changes to 6M-S and the image is captured.
- When the remaining video recording time becomes approximately 50 seconds, it will no longer be possible to capture a still image while recording a video clip. The exact remaining recording time at which this occurs will differ depending on the subject and on the video clip mode setting (page 67). If you intend to capture a still image while recording a video clip, it is suggested that you take note of the remaining video recording time.

AUDIO RECORDING AND PLAYBACK

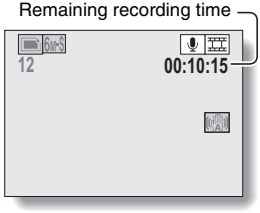
Your camera can make audio recordings and play them back.

Audio recording

1 **Turn on the camera (page 28).**

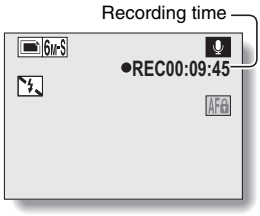
2 **Press the MENU button.**
- The menu display appears.

3 **From the video clip mode menu, select the audio memo icon [🎙], and press the SET button.**
- The audio recording mode is enabled.
- The menu display is canceled if the MENU button is pressed.



4 **Press the [ ] button.**

- Audio recording begins. During recording, appears in the monitor.
  It is not necessary to continue pressing the [ ] button while recording.
- The maximum time for recording a continuous audio memo is about 13 hours.



5 **End the recording.**

- Press the [ ] button again to stop recording.

HINT

You can capture a still image during an audio recording

- Note, however, that if the resolution in the still image mode is set to 10M or 3M, it automatically changes to 6M-S and the image is captured.

You can monitor the recorded sound

- By connecting headphones to the camera, you can monitor the sound while recording (page 152).

Audio data playback

6 **Press the REC/PLAY button.**
- The playback screen for the audio track that was just recorded appears.

7 **Play back the recording.**

Start forward playback:
Press the SET button.

Pause:
During playback, press the SET button, or toggle the SET button up.
During fast forward or fast reverse, toggle the SET button up.

Stop playback:
During playback, toggle the SET button down.

Fast forward/fast reverse:
- Fast forward/fast reverse playback is possible at 2× (forward only), 5×, 10× and 15×.
- Toggle the SET button to the left or right during playback to activate fast forward/fast reverse.
- The playback speed changes each time the SET button is toggled to the left or right.

Fast forward (toggle the SET button to the right)
2× → 5× → 10× → 15×
* Toggle the SET button to the left to return to normal speed.

Fast reverse (toggle the SET button to the left)
15× ← 10× ← 5×
* Toggle the SET button to the right to return to normal speed.

Volume adjustment:
Louder: During playback, push the zoom switch toward the [T] side.
Softer: During playback, push the zoom switch toward the [W] side.

<To delete audio data>
- Display the audio data you wish to delete, and toggle the SET button up. A screen to confirm the delete appears. Select “DELETE” and press the SET button to delete the audio data.

<To return to the Audio Recording Screen>

- Press the REC/PLAY button.

HINT

Reducing battery consumption during playback

- For the power save function (page 140), if a standby time has been specified for “BACKLIGHT”, the monitor will turn off when the set time has elapsed but playback will continue. Battery consumption can be reduced by turning the monitor off.

CAUTION

If no audio is heard...

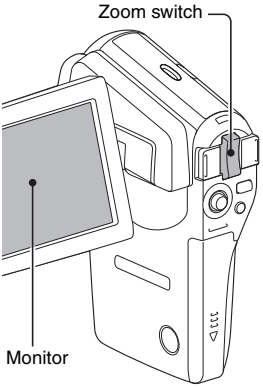
- The audio is not played back when the audio memo is played back in the fast playback or fast reverse mode.

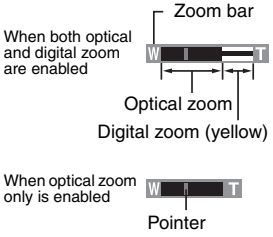
USING THE ZOOM

Your camera has two zoom functions: optical zoom and digital zoom.
You can specify whether or not the digital zoom is enabled (page 134).

1 **Point the camera lens at the subject.**

2 **Push the zoom switch toward the [T] or [W] side to compose the desired image.**
[T]: Zoom in on the subject.
[W]: Zoom out.
- When the zoom switch is moved, the zoom bar appears on the monitor.
- When the optical zoom factor is at maximum, zooming stops temporarily. When the zoom switch is pressed toward the [T] side again, the mode changes to the digital zoom mode and zooming continues.





3 **Take the picture.**
For video clip recording, see page 43.
For shooting still images, see page 47.

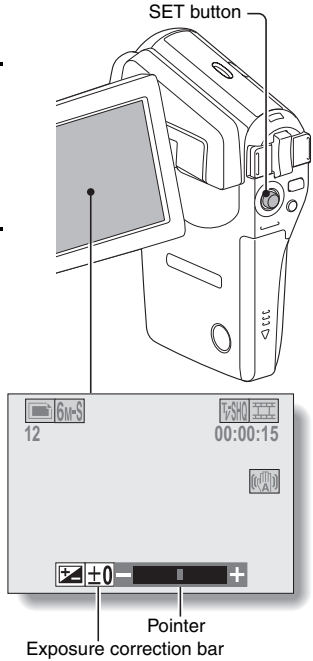
EXPOSURE CORRECTION

By assigning the exposure correction operation shortcut to the SET button (page 135), you can make the image lighter or darker when capturing images.

1 **Assign the operation shortcut to the SET button (page 135).**

2 **Toggle the SET button in the direction for which the operation shortcut was assigned.**
- The exposure correction bar appears.

3 **Toggle the SET button to the left or right to adjust the exposure.**
- The exposure setting numerical value is shown at the left end of the exposure bar.
- The exposure can be set to a value from –1.8 EV to +1.8 EV.
- The exposure correction bar is canceled when the MENU button or the SET button is pressed.



HINT

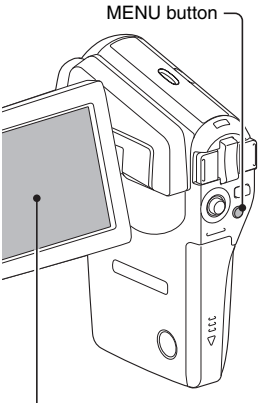
The exposure correction setting is canceled in the following cases:
- When the pointer is set to the center position.
- When the camera is set to the playback mode.
- When the standby mode or sleep mode is activated.
- After the power is turned off.

DISPLAYING THE RECORDING MENU

The RECORDING MENU is used to adjust your camera's shooting settings. The RECORDING MENU is organized into two displays: **PAGE 1** and **PAGE 2**. You can also access the RECORDING MENU from the camera settings screen (OPTION MENU [page 122]).

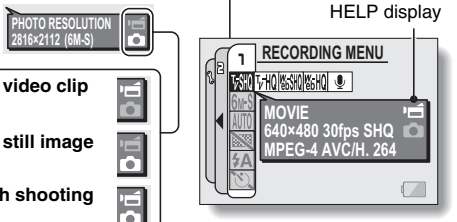
1 **Turn on the camera (page 28).**
- Turn the camera on in the shooting mode.

2 **Press the MENU button.**
- The RECORDING MENU appears.
- Pressing the MENU button again will cancel the RECORDING MENU.



About the HELP display

When the RECORDING MENU icon is selected, the HELP display appears, showing the function of the selected icon and the shooting mode(s) for which it is effective.



<Applicable to the video clip recording mode>

<Applicable to the still image shooting mode>

<Applicable to both shooting modes>

Switching the page

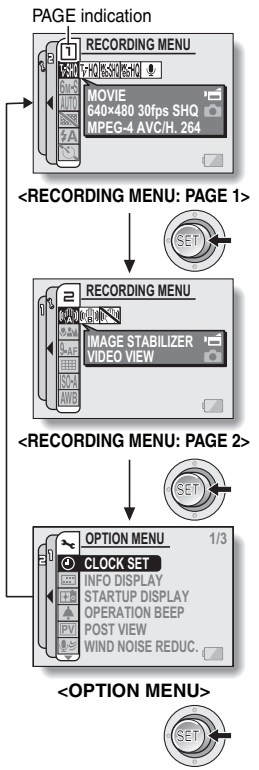
Switch to PAGE 1 or PAGE 2.

1 **Display the RECORDING MENU (page 61).**

2 **Toggle the SET button to the left.**

- The RECORDING MENU PAGE changes.
- Each time the SET button is toggled to the left, the display changes as follows:

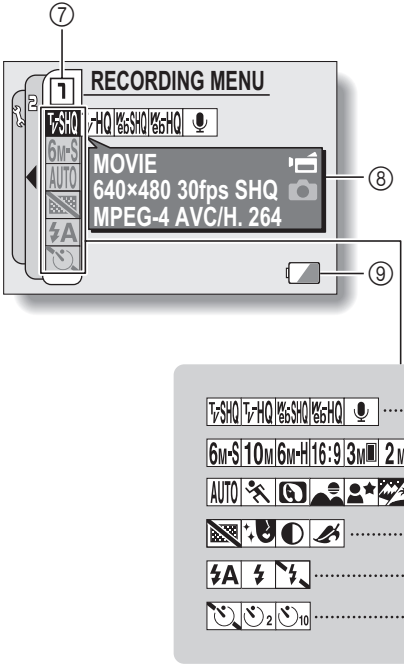
→ PAGE 2 → OPTION MENU → PAGE 1 →



DISPLAYING THE RECORDING MENU

Overview of the RECORDING MENU

PAGE 1



① **Video clip menu (page 67)**

- 640SHQ: Record at 640 × 480 pixels, 30 frames per second, high bit rate
- 640HQ: Record at 640 × 480 pixels, 30 frames per second, standard bit rate
- 320SHQ: Record at 320 × 240 pixels, 30 frames per second
- 320HQ: Record at 320 × 240 pixels, 15 frames per second
- : Make an audio recording

② **Still image resolution menu (page 68)**

- 6M-S: Shoot at 2816 × 2112 resolution (6 million pixels), standard compression
- 10M: Shoot at 3680 × 2760 resolution (10 million pixels)
- 6M-H: Shoot at 2816 × 2112 resolution (6 million pixels), low compression
- 16:9: Shoot at 2816 × 1584 resolution (approx. 4.46 million pixels)
- 3M: Shoot at 1536 × 2048 resolution (3 million pixels, vertical position)
- 2M: Shoot at 1600 × 1200 resolution (2 million pixels)
- 0.3M: Shoot at 640 × 480 resolution (300,000 pixels)

③ **Scene select menu (page 69)**

- AUTO: Full auto mode
- : Sports mode
- : Portrait mode
- : Landscape mode
- : Night view portrait mode
- : Snow and beach mode
- : Fireworks mode
- : Lamp mode

④ **Filter menu (page 71)**

- : No filter
- : Cosmetic filter
- : Monochrome filter
- : Sepia filter

⑤ **Flash menu (page 72)**

- A: Automatic flash mode
- : Forced flash mode
- : Flash off mode

⑥ **Self-timer menu (page 74)**

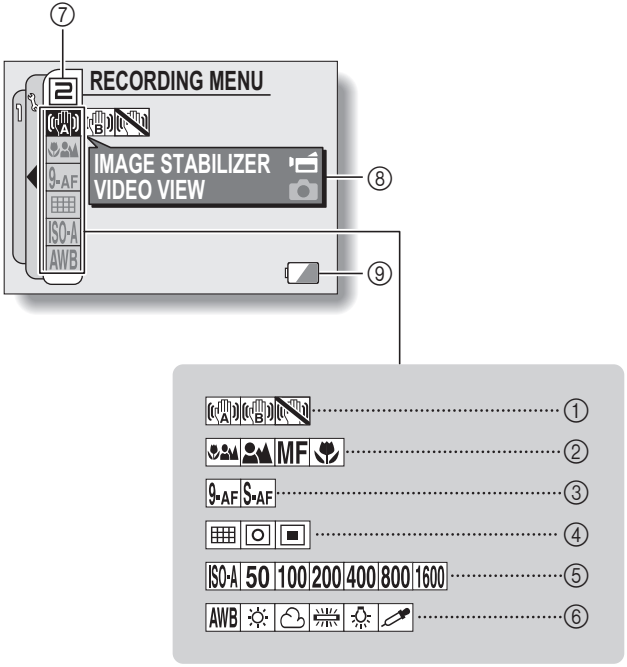
- : Self-timer off
- 2: Shooting begins 2 seconds after the [ ] button or [ ] button is pressed.
- 10: Shooting begins 10 seconds after the [ ] button or [ ] button is pressed.

⑦ **PAGE display (page 62)**
⑧ **HELP display (page 61)**
⑨ **Remaining battery power (page 149)**

- When you specify multiple functions that cannot be simultaneously enabled, the function which was last set becomes the active setting, and the other settings accordingly change automatically.

DISPLAYING THE RECORDING MENU

PAGE 2



① **Image stabilizer menu (page 76)**

: Shoot using the video clip field of view display.

: Shoot using the still image field of view display.

: Image stabilizer function off

② **Focus range menu (page 78)**

: All ranges mode

: Normal mode

MF: Manual mode

: Super macro (close-up) mode

③ **Focus mode menu (page 80)**

9-AF: 9-point range finder focus

S-AF: Spot focus

④ **Light-measuring mode (EXP MEASURE) menu (page 81)**

: Multi-section light-measuring

: Center-weighted light-measuring

: Spot light-measuring

⑤ **ISO sensitivity menu (page 82)**

ISO-A: Sets the ISO sensitivity automatically (ISO 50 to 400 [video clip recording mode: corresponds to ISO 450 to 3600]).

50: Sets the sensitivity to ISO 50 (video clip recording mode: corresponds to ISO 450).

100: Sets the sensitivity to ISO 100 (video clip recording mode: corresponds to ISO 900).

200: Sets the sensitivity to ISO 200 (video clip recording mode: corresponds to ISO 1800).

400: Sets the sensitivity to ISO 400 (video clip recording mode: corresponds to ISO 3600).

800: Sets the sensitivity to ISO 800 (video clip recording mode: corresponds to ISO 3600).

1600: Sets the sensitivity to ISO 1600 (video clip recording mode: corresponds to ISO 3600).

* The indicated ISO value is the standard output sensitivity.

⑥ **White balance menu (page 84)**

AWB: White balance is automatically adjusted depending on ambient lighting.

: For photography in fair weather (sunny) conditions

: In overcast conditions

: Under fluorescent lighting

: Under incandescent lighting

: For setting the most accurate white balance

⑦ **PAGE display (page 62)**

⑧ **HELP display (page 61)**

⑨ **Remaining battery power (page 149)**

- When you specify multiple functions that cannot be simultaneously enabled, the function which was last set becomes the active setting, and the other settings accordingly change automatically.

IMAGE QUALITY

Video clip image quality setting

When it comes to video clips, a larger number of pixels and a higher frame rate means better image quality and smoother playback. On the other hand, the file size becomes large and uses more memory. Set the image quality to a setting that's right for your purpose.

1 **Display PAGE 1 of the RECORDING MENU (page 62).**

2 **Select the video clip menu.**

- [TV SHQ]: Record at 640 × 480 pixels, 30 frames per second, high bit rate.
- [TV HQ]: Record at 640 × 480 pixels, 30 frames per second, standard bit rate.
- [16:9 SHQ]: Record at 320 × 240 pixels, 30 frames per second.
- [16:9 HQ]: Record at 320 × 240 pixels, 15 frames per second.
- [🎙]: Make an audio recording.

3 **Select the desired icon from the video clip menu, and press the SET button.**

- This completes the video clip image quality setting.

CAUTION

When editing video clips...

- In order for video clips to be joined (pages 105 and 110), they must have been recorded in the same mode.
- Video clips that were recorded in different modes cannot be joined.

Still image resolution setting

By setting the still image resolution (pixels) to a higher setting, image detail is enhanced for a smoother, finer picture. However, the file size also becomes large and uses more memory. Select the resolution setting that suits your purpose.

1 **Display PAGE 1 of the RECORDING MENU (page 62).**

2 **Select the still image resolution menu.**

- 6M-S: Shoot at 2816 × 2112 resolution (6 million pixels), standard compression.
- 10M: Shoot at 3680 × 2760 resolution (10 million pixels).
- 6M-H: Shoot at 2816 × 2112 resolution (6 million pixels), low compression.
- 16:9: Shoot at 2816 × 1584 resolution (approx. 4.46 million pixels).
- 3M: Shoot at 1536 × 2048 resolution (3 million pixels, vertical position).
- 2M: Shoot at 1600 × 1200 resolution (2 million pixels).
- 0.3M: Shoot at 640 × 480 resolution (300,000 pixels).

3 **Select the desired icon from the still image resolution menu, and press the SET button.**

- This completes the still image resolution setting.

SCENE SELECT

You can select from various preset settings (aperture, shutter speed, etc.) for specific shooting conditions.

1 **Display PAGE 1 of the RECORDING MENU (page 62).**

2 **Select the scene select menu.**

- AUTO: The camera automatically makes the optimum settings suitable for the surrounding conditions (full auto).
- : Capture a split-second image of a fast-moving subject (sports mode).
- : Enhance the 3D feeling of the subject by blurring the background (portrait mode).
- : For beautiful shots of distant scenery (landscape mode).
- : Photograph the subject while keeping the background night scenery (night view portrait mode).
- : For photographing bright scenes, such as on a ski slope or at the beach (snow & beach mode).
- : For capturing fireworks at night (fireworks mode).
- : Photograph in low-light conditions (lamp mode).

3 **Select the desired icon from the scene select menu, and press the SET button.**

- This completes the scene select function setting.

4 **Take the picture.**

For video clip recording, see page 43.
For still image shooting, see page 47.

- To return to normal photography, select AUTO from the scene select menu, and press the SET button.

HINT

- When capturing images using the fireworks, lamp or night view portrait setting, stabilize the camera.
- A table showing the limitations for settings corresponding to scene select icons other than AUTO is on page 176.

FILTERS

The filter feature changes image characteristics such as color tones, to apply unique effects to the photographed image.

1 **Display PAGE 1 of the RECORDING MENU (page 62).**

2 **Select the filter menu.**

: No filter is used (none).

: Skin tones are enhanced in close-up shots (cosmetic filter).

: Snap black-and-white photos (monochrome filter).

: Create a sepia-tone photo (sepia filter).

3 **Select the desired icon from the filter menu, and press the SET button.**

- This completes the filter setting.

4 **Take the picture.**

For video clip recording, see page 43.
For still image shooting, see page 47.

- To return to normal photography, select from the filter menu, and press the SET button.

HINT

- A table showing the limitations for settings corresponding to filter icons other than is on page 177.

SETTING THE FLASH MODE

The flash is used not only for taking pictures where there is insufficient light, but also when the subject is in shade or in backlight conditions. Your camera's flash has three modes of operation (automatic flash mode, forced flash mode and flash off mode). Select the flash mode that is appropriate for the surrounding conditions. The flash can be enabled only when capturing still images.

1 **Display PAGE 1 of the RECORDING MENU (page 62).**

2 **Select the flash menu.**

- : The camera will detect the subject brightness and use the flash only when required. In a backlight situation, if only the center of the image is very dark, the flash will operate to compensate (auto flash).
- : The flash will operate with every image captured regardless of the conditions. Use this setting under backlight conditions, when the subject is in shade, under fluorescent lighting conditions, etc. (forced flash).
- : The flash will not operate even in dark situations. Use this setting when capturing an image in a location where flash photography is prohibited, or when shooting a night landscape scene (flash off).

3 **Select the desired icon from the flash menu, and press the SET button.**

- The selected flash mode is set.

4 **Take the picture.**

- Still image shooting → page 47

SETTING THE FLASH MODE

CAUTION

Do not touch the flash unit when shooting.

- The flash unit becomes very hot and may cause a burn. Avoid touching the flash unit when shooting.

HINT

- The flash cannot be used during video clip recording.
- By assigning an operation shortcut to the SET button (page 135), you can change the flash mode from the Shooting Screen.

SELF-TIMER

1 **Display PAGE 1 of the RECORDING MENU (page 62).**

2 **Select the self-timer menu.**

: Turns off the self-timer function.

: The image is captured about 2 seconds after the [ ] button or [ ] button is pressed.

: The image is captured about 10 seconds after the [ ] button or [ ] button is pressed.

3 **Select the desired icon from the self-timer menu, and press the SET button.**

- This completes the self-timer setting.

4 **Take the picture.**

For video clip recording, see page 43.
For still image shooting, see page 47.

SELF-TIMER

HINT

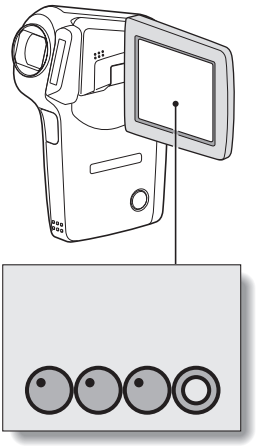
- By assigning an operation shortcut to the SET button (page 135), you can set the self-timer from the Shooting Screen.

To pause or cancel the self-timer function...

- If the [ ] button or [ ] button is pressed again before the shutter is released, the self-timer countdown temporarily stops. Press the [ ] button or [ ] button one more time to restart the self-timer.
- To cancel self-timer photography, select the icon from the self-timer menu, and press the SET button.
- The self-timer is automatically reset to off after the power save mode is activated and the camera turned off.

When is selected...

- When the [ ] button or [ ] button is pressed, the multi-indicator will blink for about 10 seconds, and then the image is captured. Also, 4 seconds before the shutter releases, the indication shown in the illustration appears on the monitor.



MOTION COMPENSATION (IMAGE STABILIZER)

Your camera can minimize a jittery picture by compensating for unintentional hand motion (video clips only).

1 **Display PAGE 2 of the RECORDING MENU (page 62).**

2 **Select the image stabilizer menu.**

: Compensate for unintentional camera motion during video clip recording. The field of view (see page 77) does not change when the [ ] button is pressed, so this setting is convenient when shooting mostly video clips (video clip field of view display).

: Compensate for unintentional camera motion during video clip recording. The field of view does not change when the [ ] button is pressed, so this setting is convenient when shooting mostly still images (still image field of view display).

: Disengages the motion compensation function (OFF).

3 **Select the desired icon from the image stabilizer menu, and press the SET button.**

- This completes the image stabilizer setting.

HINT

If the motion compensation does not seem to be working...

- Due to the mechanical characteristics of this function, it may not be possible for the camera to compensate for violent motion.
- If the digital zoom (page 134) is being used, the large magnification factor may make it difficult for the motion compensation function to work correctly.
- When stabilizing the camera, please turn the motion compensation function off . If the motion compensation function is enabled when it is not actually needed, it may result in an image that appears unnatural.

MOTION COMPENSATION (IMAGE STABILIZER)

<Concerning the changing field of view when motion compensation is enabled>

- When the motion compensation is set to ON, the field of view during recording standby differs from the recordable field of view as shown below.
- When set to the motion compensation [iA] setting, the video clip recording range is as shown in the recording standby screen.

- When the still image shooting resolution is set to [0.3M] and the scene select function to [AUTO], [🏃], [🔄], [🏔] or [🌄] (page 69), a still image captured during video clip recording will have the same field of view as the video clip.

FOCUS RANGE

If you set the focus range to match the distance from the camera to the subject, it's easy to bring the subject into focus.

1 **Display PAGE 2 of the RECORDING MENU (page 62).**

2 **Select the focus menu.**

: Wide end: 10 cm (3.94 in.) to infinity
Tele end: 80 cm (31.50 in.) to infinity (total range mode)

: 80 cm (31.50 in.) to infinity (normal mode)

MF: The focus can be manually set to any distance from 1 cm (0.39 in.) to 8 m (26.25 ft.), as well as to infinity (manual focus).

: 1 cm (0.39 in.) to 80 cm (31.50 in.) (super macro mode: wide end only)

- If manual focus MF is selected, please see "How to use the manual focus" (page 79).

3 **Select the desired icon from the focus menu, and press the SET button.**

- The focus range setting is completed.

4 **Take the picture.**

- Video clip recording → page 43
- Still image shooting → page 47

HINT

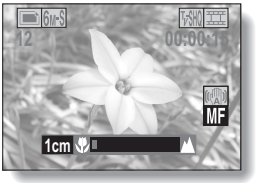
- By assigning an operation shortcut to the SET button (page 135), you can change the focus range setting or lock the focus from the Shooting Screen.
- When the focus range is set to super macro , the zoom is temporarily set to the wide end.

FOCUS RANGE

How to use the manual focus

1 **Select the manual focus icon [MF] from the focus menu (page 78), and press the SET button 2 times.**
- The focus distance adjustment bar appears.

2 **Toggle the SET button to the right or left to select the desired focus distance, and press the SET button.**
- The focus distance is set, and you are returned to the Shooting Screen.



HINT
- When shooting a subject at a medium to far distance, by setting the focus range to [landscape], you will find it both easier and faster to focus.

About the focus range
- The focus distance indication shows the distance between the lens surface and the subject.
- In some cases there may be a slight variance between the distance (numerical figure) you set in the manual focus mode and the actual distance.

About zoom movement when using the manual focus
- If the focus distance is set to 70 cm (27.56 in.) or less, the zoom changes to the largest setting that is suitable for that focus distance.
- When the focus distance is set to 70 cm (27.56 in.) or less, the zoom will function only within the range at which the image is focused.

FOCUS AREA SETTING

You can choose from the following 2 types of autofocus (still image shooting only):

9-point range finder focus:
The distance to the subject is detected by sampling from multiple areas of the entire shooting screen.

Spot focus:
The camera focuses on the subject in the center of the monitor.

1 **Display PAGE 2 of the RECORDING MENU (page 62).**

2 **Select the desired focus method from the focus mode menu, and press the SET button.**

9-AF: 9-point range finder focus is selected.

S-AF: Spot focus is selected.

- When the spot focus setting is selected, the focus mark + appears in the center of the monitor.

Focus mark

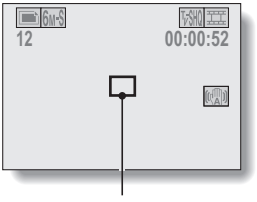
LIGHT-MEASURING MODE SETTING

You can select from 3 types of light-measuring modes.
Multi-section light-measuring:
The exposure is adjusted after sampling from multiple areas of the entire shooting screen.
Center-weighted light-measuring:
The exposure is adjusted after light is measured from the entire image, but with emphasis on the center area.
Spot light-measuring:
You can compose the picture and capture the image after first measuring the light only at the center spot of the monitor.

1 **Display PAGE 2 of the RECORDING MENU (page 62).**

2 **Select the desired light-measuring mode from the light-measuring mode (EXP MEASURE) menu.**
[▦]: Multi-section light-measuring
[⊙]: Center-weighted light-measuring
[▪]: Spot light-measuring

3 **Press the SET button.**
- This completes the light-measuring mode setting.
- When spot light-measuring is selected, the light-measuring spot mark [□] appears in the center of the monitor.



Light-measuring spot mark

ISO SENSITIVITY

With the initial settings, the ISO sensitivity is automatically set according to the brightness of the subject. However, the ISO sensitivity can be set to a fixed setting.

1 **Display PAGE 2 of the RECORDING MENU (page 62).**

2 **Select the ISO sensitivity menu.**

- [ISO-A]: Sets the ISO sensitivity automatically (ISO 50 to 400 [video clip recording mode: corresponds to ISO 450 to 3600]).
- [50]: Sets the sensitivity to ISO 50 (video clip recording mode: corresponds to ISO 450).
- [100]: Sets the sensitivity to ISO 100 (video clip recording mode: corresponds to ISO 900).
- [200]: Sets the sensitivity to ISO 200 (video clip recording mode: corresponds to ISO 1800).
- [400]: Sets the sensitivity to ISO 400 (video clip recording mode: corresponds to ISO 3600).
- [800]: Sets the sensitivity to ISO 800 (video clip recording mode: corresponds to ISO 3600).
- [1600]: Sets the sensitivity to ISO 1600 (video clip recording mode: corresponds to ISO 3600).

* The indicated ISO value when capturing still images is the standard output sensitivity.

3 **Select the desired icon from the ISO sensitivity menu, and press the SET button.**

- This completes the ISO sensitivity setting.

ISO SENSITIVITY

HINT

- By setting a higher ISO sensitivity, you can set higher shutter speeds and capture images in darker locations, but noise in the captured images may increase.
- By assigning an operation shortcut to the SET button (page 135), you can change the ISO setting from the Shooting Screen.

CAUTION

Does the image appear to flicker when recording a video clip?

- If recording a video clip under fluorescent lights with the ISO sensitivity set to 400 or higher, a noticeable flicker may appear in the image.

WHITE BALANCE

This camera automatically adjusts the white balance under most lighting conditions. However, if you want to specify the lighting conditions or change the overall tone of the image, the white balance can be manually set.

1 Display PAGE 2 of the RECORDING MENU (page 62).

2 Select the white balance menu.

AWB: The camera will make the white balance adjustment automatically based on the natural and artificial light conditions. This is the setting used in the auto mode.

☼: For shooting outside on a sunny day.

☁: For shooting outside on a cloudy day.

▦: For shooting inside under fluorescent lighting.

☼: For shooting inside under incandescent lighting.

✎: This setting is used for a more accurate white balance using the existing light source (one push). Please use it when the light source cannot be identified, for example.

Setting procedure

① Select the ✎ icon and press the SET button.
- The ✎ icon moves to the left end of the line.

② Fill the entire screen with a plain white card (or piece of paper, etc.), and press the SET button.

3 Select the desired icon from the white balance menu, and press the SET button.

- This completes the white balance setting.
- Once the white balance setting is programmed for the ✎ icon, it is retained even if another white balance setting (AWB, ☼, ☁, ▦, or ☼) is selected. If you changed to another setting, whenever you select the ✎ icon and press the SET button, the previously programmed setting is recalled.

HINT

To cancel the white balance setting

- Perform step **1**, select AWB, and then press the SET button.

DISPLAYING THE PLAYBACK MENU

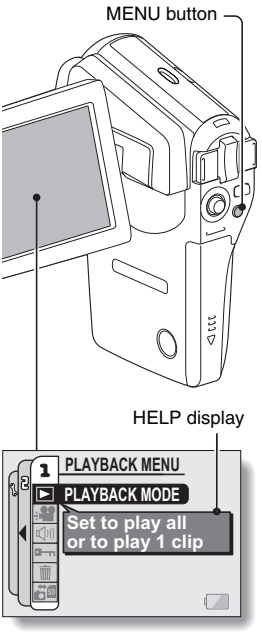
The PLAYBACK MENU is used to adjust your camera's playback settings. The PLAYBACK MENU is organized into two displays: **PAGE 1** and **PAGE 2**. You can also access the PLAYBACK MENU from the camera settings screen (OPTION MENU [page 122]).

1 **Turn on the camera (page 28).**
- Turn the camera on in the playback mode.

2 **Press the MENU button.**
- The PLAYBACK MENU appears.
- Pressing the MENU button again will cancel the PLAYBACK MENU.

About the HELP display

When the PLAYBACK MENU icon is selected, the HELP display appears, showing the function of the selected icon.



Switching the page

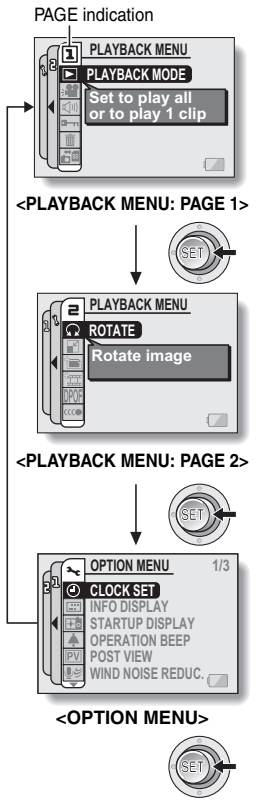
Switch to PAGE 1 or PAGE 2.

1 **Display the PLAYBACK MENU (page 85).**

2 **Toggle the SET button to the left.**

- The PLAYBACK MENU changes to the other PAGE.
- Each time the SET button is toggled to the left, the display changes as follows:

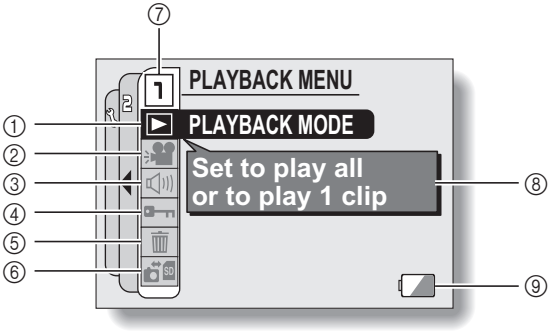
→ PAGE 2 → OPTION MENU → PAGE 1 →



DISPLAYING THE PLAYBACK MENU

Overview of the PLAYBACK MENU

PAGE 1



① **Playback mode (page 89)**
- Select continuous playback or single-frame playback.

② **Slideshow (page 91)**
- Select the slideshow settings and initiate playback.

③ **Playback volume control (page 93)**
- Adjust the playback volume for video clips and audio data.

④ **Data protect setting (page 94)**
- Protect data from accidental erasure.

⑤ **Delete (page 96)**
- Delete images from the card memory.

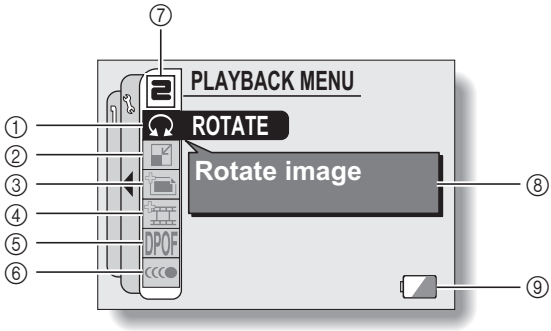
⑥ **Copy (page 98)**
- Copy files from the card to the internal memory, or vice versa.

⑦ **PAGE display (page 86)**

⑧ **HELP display (page 85)**

⑨ **Remaining battery power (page 149)**

PAGE 2



① **Rotate image (page 100)**
- Rotate still images.

② **Resize (page 101)**
- Reduce the resolution of a still image.

③ **Edit photo (page 102)**
- Repair the red-eye effect to make eyes look more natural or enhance blurry images due to camera shake.

④ **Video clip edit (page 104)**
- Edit video clips.
- Extract a still image from a video clip.

⑤ **Printing instructions (page 114)**
- Specify the printing instructions (DPOF settings).

⑥ **Smooth playback (page 120)**
- Smooth out the movement when playing back video clips.

⑦ **PAGE display (page 86)**

⑧ **HELP display (page 85)**

⑨ **Remaining battery power (page 149)**

PLAYBACK MODE

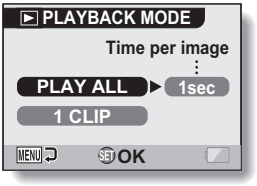
You can choose to have data played back successively (continuous playback) or have only selected data played back (clip playback).

1 **Display PAGE 1 of the PLAYBACK MENU (page 86).**

2 **Select the playback mode icon [►], and press the SET button.**

- The Playback Mode Screen appears.

PLAY ALL:
Have data played back in a continuous stream.
1 CLIP:
Display only the selected image (pages 44, 49 and 57).



3 **Select the desired playback mode.**
<When "PLAY ALL" is selected>

① Toggle the SET button to the right to select playback time.
② Toggle the SET button up or down to specify the time that each image is shown.
③ Press the SET button.

4 **Press the SET button.**

- The display time is set, and you are returned to the PLAYBACK MENU.

HINT

How to initiate continuous playback

- Set the camera to the playback mode, and press the SET button. Continuous playback starts.

How is continuous playback different from slideshow playback (page 91)?

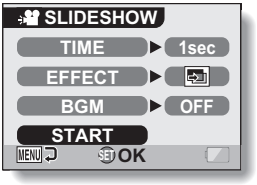
- With continuous playback, the available operations include pause (for continuous playback) and pause, fast forward and fast reverse (for video clip playback). In addition, in the continuous playback mode, the guidance display for key (button) operation and the capture date are shown on the playback screen, and playback operations (pause, accelerated playback, etc.) are possible. With slideshow playback, on the other hand, stop playback is the only operation available. Because the guidance display for key operation and the capture date are not shown, however, the images are easier to view. In addition, with continuous playback, only the current image and all subsequent images are played back; with slideshow playback, all of the images in the memory are played back, starting with the currently displayed image. Select the type of playback suitable for your purposes.

SLIDESHOW PLAYBACK

Specify the settings for playing back still images and video clips continuously in a “slideshow” format. In a slideshow of still images, you can set the transition time and transition effects.

1 **Display PAGE 1 of the PLAYBACK MENU (page 86).**

2 **Select the slideshow icon , and press the SET button.**



- The Slideshow Screen appears.

TIME:
Adjust the transition speed (the period that an image is displayed before it changes to the next image).

EFFECT:
Select a transition effect as an image changes to the next image.

BGM:
Specify the settings for playing background music during slideshow playback.

START:
Begin slideshow playback.

<Changing a setting>

① Select the item you wish to change, and press the SET button.
② Toggle the SET button up or down to change the setting.
③ Press the SET button.

3 **Select “START” and press the SET button.**

- Slideshow playback begins.
- To stop slideshow playback, press the SET button or MENU button.

■ **About BGM audio files**

In addition to the three BGM melodies stored in your camera, you can import audio files to the camera’s internal memory to use. Imported audio files can be selected from the slideshow screen in the same manner as the camera’s internal BGM melodies.

HINT

BGM for video clips?

- When video clips are played back in a slideshow, the recorded audio track is played back; the BGM is not played.

Did the BGM change?

- If you delete an audio file that was set for the BGM, and if a newly recorded audio is then assigned the same audio number as the deleted file, the newly recorded audio file will be played as the BGM.

Did you delete a BGM audio file from the camera?

- The three BGM audio files that were stored in your camera’s internal memory at the time of purchase can be recovered by formatting the internal memory.

What kind of audio files can be set for the BGM?

- Audio files that were recorded with the camera can be set as background music. The maximum playback time is about 30 seconds.

PLAYBACK VOLUME

Adjust the playback volume for video clips and audio data.

1 **Display PAGE 1 of the PLAYBACK MENU (page 86).**

2 **Select the playback volume icon [🔊], and press the SET button.**
- The volume control bar appears.

3 **Toggle the SET button left or right to adjust the volume, and press the SET button.**
- The volume is set, and you are returned to the PLAYBACK MENU.

HINT
- During video clip or audio memo playback, if you move the zoom switch, the volume control bar will appear, allowing you to adjust the volume.

IMAGE PROTECT

Prevent accidental erasure of image and audio data.

1 **Display the data that you want to protect from accidental erasure, and display PAGE 1 of the PLAYBACK MENU (page 86).**

2 **Select the protect icon [🔑], and press the SET button.**
- The Protect Screen appears.

3 **Toggle the SET button up or down to select "LOCK", and press the SET button.**
- The protect mode is set for the data.
- The protect mark [🔑] indicates that the data is locked.
- To return to the PLAYBACK MENU, press the MENU button.

IMAGE PROTECT

CAUTION

- Even if the protect mode is set for certain data files, they will be deleted if the card is reformatted (page 145).

HINT

To select a different image in steps 2 and 3...

- Toggle the SET button to the left or right.

To cancel the protect mode for an image...

- Display the desired data, repeat steps **1** and **2**, select “UNLOCK” in step **3**, and press the SET button. The protect mark will disappear and the protect mode is canceled.

DELETING DATA

You can delete data that is stored on the card if you no longer need it. You can delete the data one at a time, or all at once.

1 **To delete data from the card, perform the delete procedure with the card installed in the camera. To delete data from the camera's internal memory, remove the card before performing the delete procedure.**

2 **Display PAGE 1 of the PLAYBACK MENU (page 86).**

3 **Select the delete icon [🗑], and press the SET button.**
- The Delete Mode Screen appears.

DELETE SINGLE:
Deletes one data at a time.
DELETE ALL:
Deletes all the data.

4 **Toggle the SET button up or down to select the desired delete mode, and press the SET button.**
- The Delete Confirmation Screen appears.

<DELETE SINGLE>
- Toggle the SET button to the left or right to select the data you wish to delete.
- There is no confirmation screen when deleting single files. Please make sure that the displayed image is one you wish to delete.

<DELETE ALL>
- Toggle the SET button to the left or right confirm the data to delete.

5 **Toggle the SET button up to select “DELETE”, and press the SET button.**

<DELETE SINGLE>

- The currently displayed image is deleted.
- To delete other data, select the data, select “DELETE” and press the SET button.

<DELETE ALL>

- The Delete Confirmation Screen again appears. To delete the data, select “YES”, and press the SET button. When data delete is completed, “No image” is shown.

CAUTION

- Data that is protected from accidental delete cannot be deleted. To delete protected data, set the protect setting for the data to off (page 94), and then follow the data delete procedure.

HINT

- You can also access the Delete Single Confirmation Screen from the Playback Screen by toggling the SET button up.

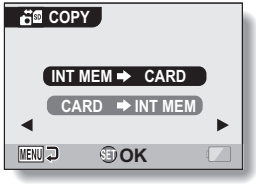
COPY DATA

Images and audio files recorded in the camera's internal memory can be copied to the card, and likewise from the card to the internal memory.

1 **Insert the card in the camera (page 27).**

2 **Display PAGE 1 of the PLAYBACK MENU (page 86).**

3 **Select the copy icon , and press the SET button.**
- The screen to copy files appears.



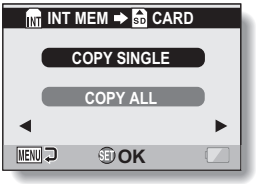
4 **Select the copy direction.**
INT MEM ➡ CARD:
Copy image data from the internal memory to the card.
CARD ➡ INT MEM:
Copy image data from the card to the internal memory.

* If no card is set in the camera, you cannot copy data.

5 **Press the SET button.**

- The screen to select the type of copy appears.
- The copy source image is shown in the background on the screen.

COPY SINGLE:
Copy the data for one image.
COPY ALL:
Copy all the data from the copy source to the copy destination.



6 **Select the desired type of copy.**

<When selecting "COPY SINGLE">
① Toggle the SET button to the left or right to display the image you wish to copy.
② Toggle the SET button up or down to select "COPY SINGLE".
<When selecting "COPY ALL">
① Toggle the SET button up or down to select "COPY ALL".

7 **Press the SET button.**

- The files are copied.

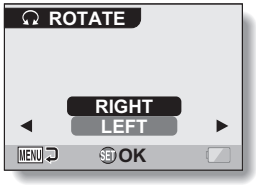
ROTATE IMAGE

Captured still images can be rotated to the correct orientation for viewing.

1 **Display the still image you wish to rotate, and display PAGE 2 of the PLAYBACK MENU (page 86).**

2 **Select the rotate icon [↻], and press the SET button.**
- The Rotate Screen appears.

RIGHT:
Rotates image clockwise 90 degrees.
LEFT:
Rotates image counterclockwise 90 degrees.



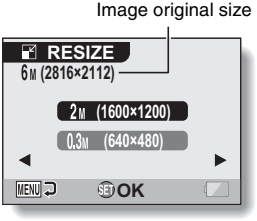
3 **Select "RIGHT" or "LEFT", and press the SET button.**
- Each time the SET button is pressed, the image is rotated another 90 degrees.

CHANGING IMAGE SIZE (RESIZE)

The size of a still image that has already been captured at a resolution higher than [2M] can be changed to 1600 × 1200 pixels or 640 × 480 pixels. The resized image is saved as a separate image.

1 **Display the still image whose size you want to change, and display PAGE 2 of the PLAYBACK MENU (page 86).**

2 **Select the resize icon [⧉], and press the SET button.**
- The Resize Screen appears.



3 **Toggle the SET button up or down to select the new image size.**

2M (1600 × 1200): The saved image will be 1600 × 1200 pixels.
0.3M (640 × 480): The saved image will be 640 × 480 pixels.

4 **Press the SET button.**
- Resizing begins.

HINT
Why can't the image be resized?
- An image can be resized only to a smaller (or the same) size, not to a larger size.
- A still image that was captured with a resolution setting of [16:9] cannot be resized.

CORRECTING CAMERA SHAKE AND RED-EYE EFFECT

Repair the red-eye effect in still images to make the eyes appear more natural, and enhance still images that are blurry due to camera shake.

1 **Display the image to be modified, and display PAGE 2 of the PLAYBACK MENU (page 86).**

2 **Select the edit photo icon [ ], and press the SET button.**
- The Edit Photo Screen appears.

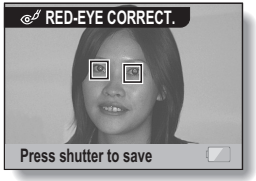
BLUR CORRECTION:
Repairs the effects of camera shake.
RED-EYE CORRECT.:
Repair the red-eye effect.

3 **Select the desired type of edit, and press the SET button.**
- The corresponding edit screen appears.

CORRECTION:
Proceed with the image correction.
EXIT:
Return to the PLAYBACK MENU.

<Example: "RED-EYE CORRECT." was selected>

4 **Select "CORRECTION", and press the SET button.**
- Image editing begins. During image processing, "Processing" is shown on the screen.
- When editing is completed, the modified image is shown. Check the image to see if the post-processing result is satisfactory.



<Example: Red-eye correction>

CORRECTING CAMERA SHAKE AND RED-EYE EFFECT

5 **Press the [ ] button.**

- A screen appears for you to specify whether or not to save the original image.

SAVE AS NEW:
The corrected image is saved as a separate image, and the original image is preserved.
OVERWRITE FILE:
The original file is deleted, and only the corrected image is saved.

6 **Select the desired method to save the corrected image, and press the SET button.**

- The corrected image is saved, and you are returned to the Edit Photo Screen.

HINT

About the blur correction icon

- On the Blur Correction Screen, an icon indicating the degree of blur appears.
  : Blur correction unnecessary or blur correction completed.
  : Blur correction possible
  : Blur correction not possible
- Blur correction is not possible for images captured at a shutter speed of 1/8 sec or less, or for images captured using a different digital camera. Also, blur correction may not be possible in cases of extreme blur.

If the "Blur correction not successful" or "Red-eye correction not successful" message appears...

- The camera was not able to successfully repair the image.
- The correction function works to automatically edit flaws that the camera detects in captured images. In some cases, the camera may fail to correctly detect a flaw, or it may incorrectly identify a flaw where it does not exist.

Concerning the date and time information for the saved image

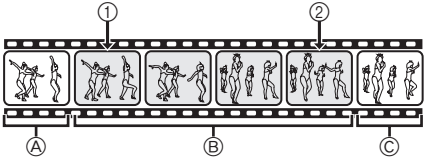
- When an image is corrected and saved, the recorded date and time of capture (Exif information) remains unchanged from the original image. However, the file date shown on the computer changes to the date and time the image was revised.

EDITING VIDEO CLIPS

You can trim away unwanted portions from a video clip and save it as a new video clip (video clip cutting [extracting]). You can also join two video clips together and save them as one separate clip ("joining"), or save a single frame from a video clip as a still image.

Procedure to cut (extract) a portion of a video clip

Specify the frames (①, ②) where the video clip is to be cut.



▼

Extract the specified portion.

[Two ways to cut the video clip]

- Trim away portions Ⓐ and Ⓒ, and save portion Ⓑ. ••

- Delete portion Ⓑ, and join portions Ⓐ and Ⓒ. ••

- The original video clip is not affected. ••

(You can also choose to erase the original video clip when the new clip is saved.)

EDITING VIDEO CLIPS

Procedure to join video clips

Specify the video clip that will come first.

▼

Specify the video clip that you wish to append (join).

▼

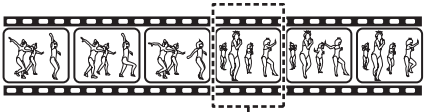
Join the video clips.

- The two video clips are saved together as a separate video clip.

- The original video clips are not affected. (You can also choose to erase the original video clips when the new clip is saved.)

Procedure to extract a still image

Pause at the frame where you want to extract the still image.



Pause

▼

Extract the frame as a still image.

CAUTION

Caution when editing video clips

- When editing video clips, do not turn off the camera. If you turn off the camera while editing video clips, not only will the editing not be properly completed, but the original video clip may also be erased.
- As the number or size of the video clips increases, the card memory may become full, making it impossible to edit the video clips. In this case, you will need to free some of the memory on the card, either by deleting data that are no longer necessary (page 96), or by selecting “OVERWRITE FILE” when saving edited video clips (pages 109 and 111).
- The operation sounds for the camera's buttons are disabled during video clip editing.

EDITING VIDEO CLIPS

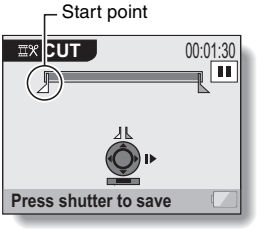
Video clip cutting (extracting)

1 **Display the video clip from which you wish to extract a segment.**

2 **Display PAGE 2 of the PLAYBACK MENU (page 86).**

3 **Select the edit video icon [EDIT], and press the SET button.**
- The Edit Video Screen appears.

4 **Select "CUT" and press the SET button.**
- The Cutting Screen appears.



5 Specify the start point of the extract.

- Use the procedure below to specify the frame from which the video clip extract will start.
- Play the video clip until approximately the desired point, pause the video clip, then play the video clip one frame at a time, stopping at the start point of the extract. This will be the first frame of the extract.
- If the start point of the video clip is also the start point of the extract, proceed to step **6**.

<Procedure>

Play:
After pausing playback, press and hold the SET button to the right for about 2 seconds for forward playback, or to the left for reverse playback.

Pause:
During playback, press the SET button.

Accelerated playback:
During playback, toggle the SET button to the left or right to change the playback speed.

Single frame:
After pausing playback, toggle the SET button to the right to move forward one frame, or to the left to move back one frame.

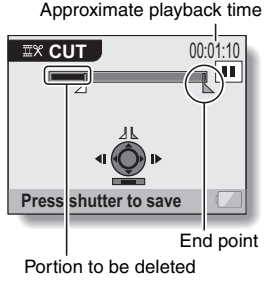
6 Toggle the SET button up.

- The start point of the video clip extract is set, and the screen to specify the end point appears.
- Specify the end point of the extract by following the same procedure as in step **5**.

<When joining the first and latter portions>

① Toggle the SET button down.
- Each time the SET button is toggled down, the sections to delete and the sections to save are reversed.

② Specify the end point of the extract. The frame following the end point of the extract will be the start point of the latter portion to be joined.



7 **Press the [📷] button.**

- A screen appears for you to select either to save the edited video clip as a new (separate) file, or to delete the original video clip and replace it with the edited video clip.

SAVE AS NEW:
The edited video clip will be saved as a new file. The original video clip remains unchanged.
OVERWRITE FILE:
The original video clip will be deleted. Only the edited video clip will be saved.
REVIEW CLIP:
Play back the edited video clip before saving it.

8 **Select the desired option, and press the SET button.**

- Editing starts.
- When editing ends, you are returned to the PLAYBACK MENU.

HINT

- If the original video clip is protected, even if you select “OVERWRITE FILE” in step **8** and press the SET button, the original video clip will not be erased. If you want it to be erased, you will need to first remove the protection (page 94).
- If the “Card full” message appears, you will need to free some of the memory by deleting data that you do not need to keep.

CAUTION
Warning concerning the battery pack remaining charge

- During the editing of lengthy video clips, the time to process the large amount of data can become quite long. To avoid problems caused by the battery pack becoming depleted in the middle of video clip editing, before starting to edit be sure that a sufficiently charged battery pack is installed in the camera.
- It is recommended that a computer be used to edit long video clips.

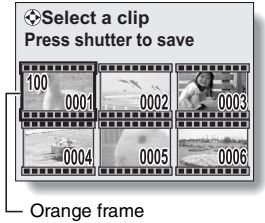
Joining two video clips

CAUTION
- Video clips that were recorded in different modes cannot be joined.

1 **Display PAGE 2 of the PLAYBACK MENU (page 86).**

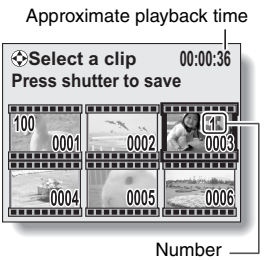
2 **Select the edit video icon [icon], and press the SET button.**
- The Edit Video Screen appears.

3 **Select "JOIN" and press the SET button.**
- The 6-image playback display for video clips appears.



4 **Move the orange frame to the video clip you wish to join, and press the SET button.**

- The specified video clip is labeled with a number.
- Up to 9 video clips can be selected.
- To cancel a selection and remove the number label from a video clip, select the video clip and press the SET button.



5 **Press the [📷] button.**

- A screen appears for you to select either to save the joined video clip as a new (separate) file, or to delete the original video clips and replace them with the joined video clip.

SAVE AS NEW:
The joined video clip will be saved as a new file. The original video clips remain unchanged.
OVERWRITE FILE:
The original video clips will be deleted. Only the joined video clip will be saved.
REVIEW CLIP:
Play back the joined video clip before saving it.

6 **Select the desired option, and press the SET button.**
- Editing starts.
- When editing ends, you are returned to the PLAYBACK MENU.

HINT
- If the original video clip is protected, even if you select “OVERWRITE FILE” in step **6** and press the SET button, the original video clip will not be erased. If you want it to be erased, you will need to first remove the protection (page 94).
- If the “Card full” message appears, you will need to free some of the memory by deleting data that you do not need to keep.

CAUTION
Warning concerning the battery pack remaining charge
- During the editing of lengthy video clips, the time to process the large amount of data can become quite long. To avoid problems caused by the battery pack becoming depleted in the middle of video clip editing, before starting to edit be sure that a sufficiently charged battery pack is installed in the camera.
- It is recommended that a computer be used to edit long video clips.

EDITING VIDEO CLIPS

Extracting a still image from a video clip

You can select one image (scene) from a video clip, copy it, and save it as a still image (the original data remains unchanged).

1 **Play back a video clip, and pause at the point you wish to copy and save.**

2 **Display PAGE 2 of the PLAYBACK MENU (page 86).**

3 **Select the video clip edit icon [icon], and press the SET button.**
- The Video Clip Edit Screen appears.

4 **Select "EXTRACT STILL", and press the SET button.**
- The screen to extract an image appears.

SAVE:
The image is copied and saved as a still image (the original data is left unchanged).
EXIT:
You are returned to the PLAYBACK MENU.

5 **Select "SAVE" and press the SET button.**
- The image is extracted.

HINT
To select a different image (frame) in step 4...
- Toggle the SET button to the left or right.

PRINTING INSTRUCTIONS

In addition to using your printer to print out still images captured with your camera, as with conventional film, you can have prints made at shops offering digital print services. Moreover, this camera is DPOF-compatible, so you can use the camera to specify the number of prints, whether or not the date is displayed on the print, and also to request an index print.

Display the Printing Instructions Screen

1 **Display PAGE 2 of the PLAYBACK MENU (page 86).**

2 **Select the printing instructions icon DPOF, and press the SET button.**

- The Printing Instructions Screen appears.

ALL IMAGES:
The specified printing instructions apply to all the still images on the card.
EACH IMAGE:
The printing instructions are specified for each individual image.
INDEX:
All the still images are printed as miniature images (thumbnail images), several images on one print.
ALL CLEAR:
Clear all the printing instructions. This cannot be selected if no printing instructions have been specified for the image.

HINT

Printing a single frame from a video clip

- To print with a printer or have the digital print service shop print out a still image from a video clip, you must first save it (extract still) as a still image (page 113).

About the DPOF format

- DPOF (Digital Print Order Format) is a print order format. You can connect your camera to a DPOF-compatible printer to produce your prints. You can also set the printing instructions for the desired images, and then have the requested images printed automatically (page 158).

About the finished prints

- Rotated images (page 100) will be printed in their original orientation.
- The quality of the print output will differ depending on the print service and printer used.

Specifying date imprinting and print quantities

You can specify printing instructions for each individual image (EACH IMAGE), or apply the printing instructions to all the images on the card (ALL IMAGES).

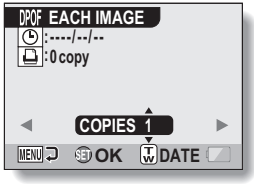
1 **Display the Printing Instructions Screen (page 114).**

2 **Select "ALL IMAGES" or "EACH IMAGE".**

ALL IMAGES:
The printing instructions are applied to all the still images on the card.
EACH IMAGE:
The printing instructions are applied only to the image currently displayed.

3 **Press the SET button.**

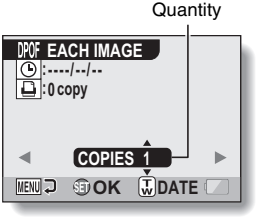
- The Date/Copies Print Screen appears.
- If "EACH IMAGE" was selected, toggle the SET button to the left or right to display the desired image to print.
- The printing instructions that are currently active for the displayed image are shown. You can toggle the SET button to the left or right to confirm the printing instructions for each image.



4 **Specify whether the date is displayed on the print, and the number of prints.**

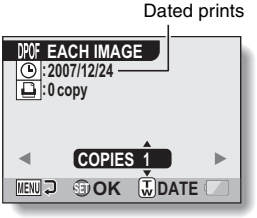
<Specify the number of prints>

- Toggle the SET button up or down.
  - The quantity indication changes.
  - Display the desired number of prints.



<Specify dated prints>

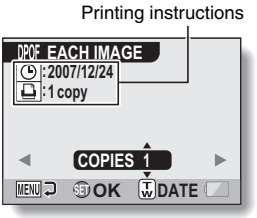
- Push the zoom switch toward the [T] or [W] side.
  - Each time the zoom switch is moved, the date indication is switched on or off.
  - For images that were captured when the camera's clock was not set (page 32), the date display appears as [--/--/--], and dated prints are not possible.



Dated prints:
Turn the date indication on.
Undated prints:
Turn the date indication off.

5 **Press the SET button.**

- The printing instructions for the requested print quantities and dated prints are stored.



6 **Press the MENU button.**

- The display returns to the Printing Instructions Screen.

Index print

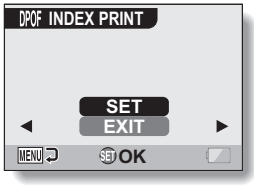
Printing out many small images on one sheet is called an "index print". This is convenient for use as a list of the images you have captured.

1 **Display the Printing Instructions Screen (page 114).**

2 **Select "INDEX".**

3 **Press the SET button.**
- The Index Print Screen appears.

SET:
Specify an index print copy.
EXIT:
Discontinue the setting procedure, and return to the Printing Instructions Screen.



4 **Select "SET", and press the SET button.**
- This completes the setting for the index print. You are returned to the Printing Instructions Screen.

HINT

To cancel the index print setting

- Follow steps **1** and **2**, select "CLEAR" in step **3**, and press the SET button.

Clearing all the printing instructions

Delete the printing instructions for all images.

1 **Display the Printing Instructions Screen (page 114).**

2 **Select “ALL CLEAR”.**

3 **Press the SET button.**
- The Confirm All Clear Screen appears.

CANCEL:
Clear the printing instructions for all images.
EXIT:
Cancel the clear procedure and return to the Printing Instructions Screen.

4 **Select “CANCEL”, and press the SET button.**
- All the printing instructions are cleared and you are returned to the Printing Instructions Screen.

SMOOTH PLAYBACK

Suppress the video flicker that occurs when playing back video clips that were recorded with the camera moving fast.

1 **Display PAGE 2 of the PLAYBACK MENU (page 86).**

2 **Select the smooth playback icon, and press the SET button.**
- The Smooth Playback Screen appears.

ON:
Activate smooth playback.
OFF:
Deactivate smooth playback.

3 **Select "ON", and press the SET button.**
- This completes the smooth playback setting.

HINT
- Depending on the recording conditions, the smooth playback effect may be insignificant in some cases.

DISPLAYING IMAGE PROPERTIES (INFORMATION SCREEN)

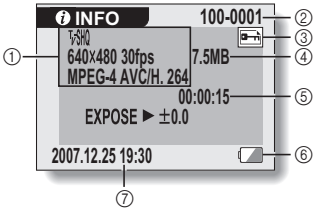
On the Information Screen you can check what the settings were when an image was captured.

1 **Display the desired image.**

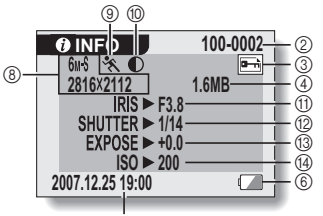
2 **Press the MENU button for at least 1 second.**

- The Information Screen appears.
- If the MENU button is pressed again, the Information Screen is canceled.

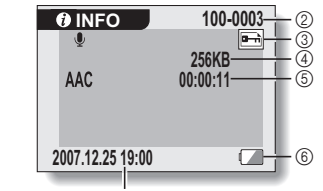
① **Video clip mode settings**
② **Image or sound number**
③ **Protect setting**
④ **File size**
⑤ **Shooting or recording time**
⑥ **Remaining battery charge**
⑦ **Date and time of image**
⑧ **Still image resolution settings**
⑨ **Scene select function**
⑩ **Filters**
⑪ **Aperture**
⑫ **Shutter speed**
⑬ **Exposure correction**
⑭ **ISO sensitivity**



<Video clip data>



<Still image data>



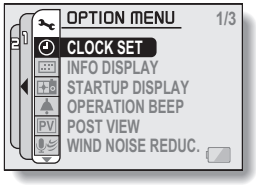
<Audio data>

DISPLAYING THE OPTION MENU

The OPTION MENU is used to adjust various camera settings.

1 **Turn on the camera (page 28), and press the MENU button.**
- The RECORDING MENU or PLAYBACK MENU appears.

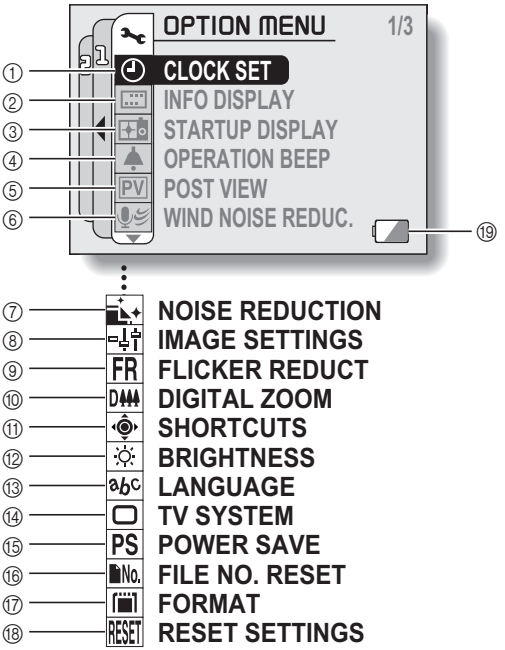
2 **Toggle the SET button to the left two times to display the OPTION MENU.**
- The OPTION MENU is canceled if the MENU button is pressed.



<OPTION MENU>

DISPLAYING THE OPTION MENU

Overview of the OPTION MENU



① **Date and time setting (page 32)**
- Set the camera's internal clock.

② **Screen display (page 35)**
- Specify whether the time/date the image was captured is displayed.
- Specify what information is displayed on the Playback Screen.

③ **Startup display (page 125)**
- Select the screen display that appears when the camera is turned on.

④ **Operation sounds setting (page 126)**
- Select the operation sounds that are produced when the camera's buttons are pressed, and adjust the operation sound volume.

⑤ **Post-view (page 129)**
- Specify how long the captured image is displayed on the monitor after the [ ] button is pressed and released.

⑥ **Wind noise reduction setting (page 130)**
- Set the wind noise reduction function on or off.

⑦ **Noise-reduction menu (page 131)**
- Set the noise-reduction function on or off.

⑧ **Image quality adjustment (page 132)**
- Adjust the image quality during shooting.

⑨ **Flicker-reduction menu (page 133)**
- Set the flicker-reduction function on or off.

⑩ **Digital zoom setting (page 134)**
- Enable or disable the digital zoom.

⑪ **Shortcuts (page 135)**
- Assign functions to the SET button operation when the Shooting Screen is displayed.

⑫ **Monitor brightness (page 137)**
- Adjust the brightness of the monitor.

⑬ **Screen language (page 138)**
- Select the language in which the monitor messages are displayed.

⑭ **TV system settings (page 139)**
- Select the type of video signal that is output from the camera's AV terminal.

⑮ **Power save function (page 140)**

⑯ **File number reset (page 142)**
- Select the file number reset function.

⑰ **Format (page 145)**
- Reformat the camera's internal memory or the card installed in the camera.

⑱ **Settings reset (page 147)**
- Reset the camera to the factory-preset settings.

⑲ **Remaining battery power (page 149)**

* Icons ⑦ through ⑱ are displayed when you toggle the SET button up or down to scroll.

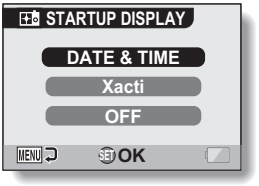
SELECT THE STARTUP DISPLAY

The startup display is the display that appears on the monitor when the camera is turned on.

1 **Display the OPTION MENU (page 122).**

2 **Select the startup display icon [E], and press the SET button.**
- The Startup Display Setting Screen appears.

DATE & TIME:
The camera's date and time setting is shown.
Xacti:
The Xacti logo is shown.
OFF:
No startup display.



3 **Select the desired setting, and press the SET button.**
- The selected startup display is set.

OPERATION SOUNDS

Use this menu to set the confirming audio signals when the camera is turned on/off or when the operation buttons ([📷] button, SET button, MENU button, etc.) are pressed, to adjust the operation sound volume, and to enable/disable the audio guide.

1 **Display the OPTION MENU (page 122).**

2 **Select the operation beep icon [🔔], and press the SET button.**

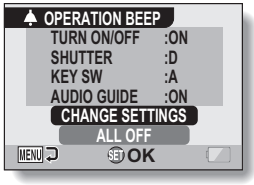
- The Operation Beep Setting Screen appears.
- The current settings are shown on the screen.
- If “ALL OFF” is selected and the SET button pressed, all the operation sounds are muted.
- When “ALL OFF” is selected, the “CHANGE SETTINGS” indication changes to “ON”. If “ON” is then selected and the SET button is pressed, “ON” changes to “CHANGE SETTINGS”.

TURN ON/OFF:
Mute or enable the sound that is produced when the power is turned on or off.

SHUTTER:
Select the sound that is produced when the [📷] button is pressed.

KEY SW:
Select the sound that is produced when the SET button, MENU button, etc. are pressed.

AUDIO GUIDE:
Mute or enable the camera’s audio help guide.

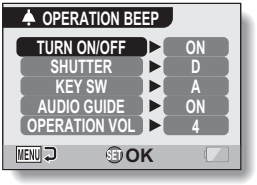


<“ALL OFF” is selected>

OPERATION SOUNDS

3 **Select "CHANGE SETTINGS", and press the SET button.**

- The screen to change the settings appears.



4 **Toggle the SET button up or down to select the desired setting, and press the SET button.**

- The screen to select operation sounds appears.

<If "TURN ON/OFF" or "AUDIO GUIDE" is selected>

- The respective screen to enable or disable the sound appears.
- Toggle the SET button up or down to select the desired setting, and press the SET button.
  ON: Activates the sound.
  OFF: Deactivates the sound.

<If "SHUTTER" or "KEY SW" is selected>

- The screen to select the operation sounds appears.
- Select from 8 different sounds (A to H).
- You can toggle the SET button to the right to preview the selected operation sound.
- If "OFF" is selected, no sound is produced.
- Toggle the SET button up or down to select the desired setting, and press the SET button.

<If "OPERATION VOL" is selected>

- The screen to select the volume for the operation sounds appears.
- You can select an operation sound volume from 1 (minimum) to 7 (maximum).
- Toggle the SET button up or down to select the volume, and press the SET button.

5 **Press the MENU button.**

- The operation sound settings are completed.

HINT

- If you keep the MENU button pressed and turn on the power, the screen to turn the operation sounds ON/OFF appears at once. You may find this a convenient procedure to disable the operation sounds in places you do not want them to be audible.

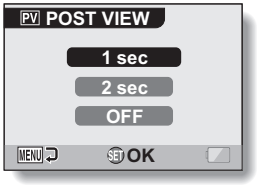
POST-VIEW SETTING

Specify the duration that the captured image appears on the monitor (post-view) after the [📷] button is pressed and released.

1 **Display the OPTION MENU (page 122).**

2 **Select the post-view icon [PV], and press the SET button.**
- The Post-view Screen appears.

1 sec:
The post-view image is displayed for 1 second.
2 sec:
The post-view image is displayed for 2 seconds.
OFF:
The post-view image is not displayed.



3 **Select the desired setting, and press the SET button.**
- This completes the post-view setting.

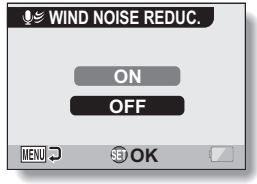
WIND NOISE REDUCTION

This feature reduces the ambient sound of the wind when you are recording a video clip or making an audio recording in a strong wind environment. Set the function to on or off.

1 **Display the OPTION MENU (page 122).**

2 **Select the wind noise reduction icon [icon], and press the SET button.**
- The Wind Noise Reduction Screen appears.

ON:
The wind noise reduction function is turned on.
OFF:
The wind noise reduction function is turned off.



3 **Select the desired setting, and press the SET button.**
- This completes the wind noise reduction setting.

HINT
- For normal shooting, set the wind noise reduction to “OFF”. If the function is enabled when there is no wind, the audio during shooting and recording sounds unnatural.

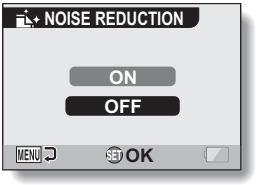
NOISE-REDUCTION FUNCTION

Use this setting to minimize noise in still images and produce a clear image.

1 **Display the OPTION MENU (page 122).**

2 **Select the noise-reduction icon , and press the SET button.**
- The Noise Reduction Screen appears.

ON:
The noise-reduction function is enabled.
OFF:
The noise-reduction function is disabled.



3 **Select the desired setting, and press the SET button.**
- This completes the noise-reduction setting.

HINT
- The noise-reduction function is effective when the shutter speed is 1/4 second or less.
- Compared to normal shooting, the image processing time after shooting is slightly longer.

ADJUST THE IMAGE QUALITY

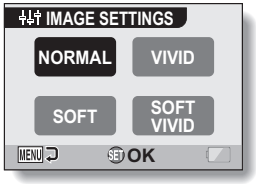
The camera can adjust the image quality as the image is captured.

1 **Display the OPTION MENU (page 122).**

2 **Select the image quality icon [IMAGE SETTINGS], and press the SET button.**

- The Image Settings Screen appears.

NORMAL:
Shoot with image quality at normal.
VIVID:
Color saturation is increased.
SOFT:
The sharpness is subdued for a softer image.
SOFT VIVID:
The sharpness is softened and color saturation is increased.



3 **Select the desired setting, and press the SET button.**

- This completes the image quality setting.

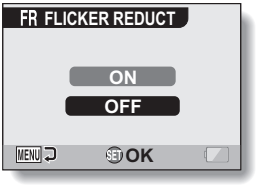
FLICKER-REDUCTION

The flicker-reduction setting reduces the flicker that results when filming video clips under fluorescent lights and the like where the background lighting pulsates at the frequency of the power supply. The flicker-reduction setting is set to a frequency of 50 Hz.

1 **Display the OPTION MENU (page 122).**

2 **Select the flicker-reduction icon [FR], and press the SET button.**
- The Flicker Reduction Screen appears.

ON:
Turns on the flicker-reduction setting.
OFF:
Turns off the flicker-reduction setting.



3 **Select the desired setting, and press the SET button.**
- This completes the flicker-reduction setting.

HINT
- If the flicker-reduction setting is used outdoors on a very bright day, a halation effect, which produces diffused rings of light around bright light areas, may occur.

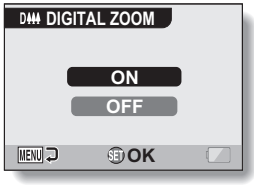
DIGITAL ZOOM SETTING

This setting allows you to specify whether or not the digital zoom is enabled during zoom shooting.

1 **Display the OPTION MENU (page 122).**

2 **Select the digital zoom icon [D], and press the SET button.**
- The Digital Zoom Screen appears.

ON:
Digital zoom can be used.
OFF:
Digital zoom cannot be used.



3 **Select the desired setting, and press the SET button.**
- This completes the digital zoom setting.

HINT

If the digital zoom does not seem to be working…
- The digital zoom is disabled when the still image shooting mode is set to [10M].

ASSIGN SET BUTTON FUNCTIONS

Assign functions (operation shortcuts) to the SET button when it is toggled up, down, left or right when the Shooting Screen is displayed.

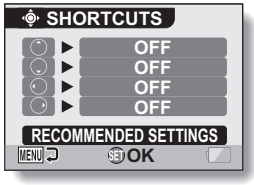
1 **Display the OPTION MENU (page 122).**

2 **Select the shortcuts icon [⊕], and press the SET button.**

- The Shortcuts Screen appears.

▲: Assign the function when the SET button is toggled up.
▼: Assign the function when the SET button is toggled down.
◀: Assign the function when the SET button is toggled to the left.
▶: Assign the function when the SET button is toggled to the right.

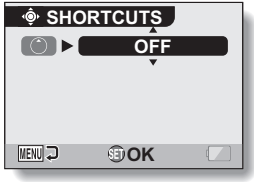
Recommended settings:
The most commonly used settings are automatically assigned.



3 **Select the key to which you wish to assign the function, and press the SET button.**

- The screen to assign a function to the key appears.

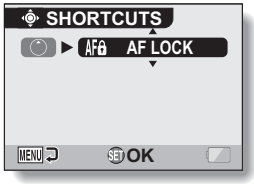
[OFF]: No operation shortcut is assigned to the key.
AF LOCK: Lock the focus (page 46).
FOCUS: Set the focus range (page 78). (This operation shortcut can be assigned only to the ▲ or ▼ key.)
FLASH: Set the flash operation (page 72).
EXPOSURE: Adjust the exposure (page 60).
ISO: Set the ISO sensitivity (page 82).
SELF-TIMER: Set the self-timer (page 74).



<When ▲ is selected>

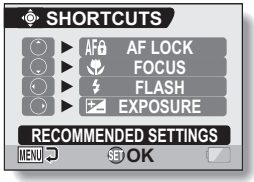
4 **Toggle the SET button up or down.**

- Display the function you wish to assign to the key.



5 **Press the SET button.**

- The selected function is assigned to the key, and you are returned to the Shortcuts Screen.
- To assign functions to the other keys, repeat steps **3** through **5**.



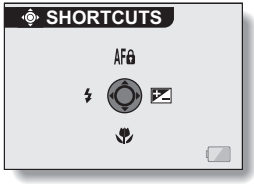
<When "RECOMMENDED SETTINGS" is selected>

6 **Press the MENU button.**

- The screen to confirm the shortcut settings appears, and then you are returned to the OPTION MENU.
- This completes the shortcuts setting.

<To confirm the assigned shortcuts>

- On the screen in step **2**, press the MENU button, and the screen to confirm the shortcut settings appears.



MONITOR BRIGHTNESS

Adjust the brightness of the camera's monitor display. Use this adjustment when the monitor image is difficult to view because of ambient lighting.

1 **Display the OPTION MENU (page 122).**

2 **Select the brightness icon [☼], and press the SET button.**
- The brightness control display appears.

3 **Toggle the SET button to the left or right to set the brightness, and press the SET button.**
- The monitor brightness is set.

HINT
- The display in step **2** can also be accessed from the Shooting Screen. Press the MENU button for at least 1 second; the brightness control display will appear, and you can then adjust the monitor brightness.

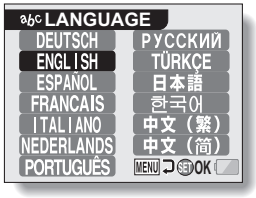
SCREEN LANGUAGE

You can set the monitor of your camera to display the messages in any one of several languages.

1 **Display the OPTION MENU (page 122).**

2 **Select the language icon abc, and press the SET button.**

- The Language Screen appears.



DEUTSCH:	German
ENGLISH:	English
ESPAÑOL:	Spanish
FRANCAIS:	French
ITALIANO:	Italian
NEDERLANDS:	Dutch
PORTUGUÊS:	Portuguese
РУССКИЙ:	Russian
TÜRKÇE:	Turkish
日本語:	Japanese
한국어:	Korean
中文(繁):	Chinese (traditional)
中文(簡):	Chinese (simplified)

3 **Select the desired language, and press the SET button.**

- The selected display language is set.

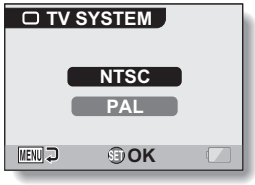
TV SYSTEM SETTING

Specify the type of image signal that is output from your camera's AV terminal.

1 **Display the OPTION MENU (page 122).**

2 **Select the TV system icon [▭], and press the SET button.**
- The TV System Screen appears.

NTSC:
Outputs NTSC video signals.
PAL:
Outputs PAL video signals.



3 **Select the desired setting, and press the SET button.**
- The selected TV system is set.

HINT

If no image appears on the TV...

- If the TV system setting is not correct for the connected equipment, no image will appear on the TV.

When set to "PAL" and connected to a TV using the included AV interface cable (page 151)

Shooting: Images are displayed on the monitor only and do not appear on the TV.
Playback: Images are displayed on the TV only and do not appear on the monitor.

POWER SAVE FUNCTION

Your camera has a “power save” function whereby the power automatically turns off after a specified period of inactivity. The power save function works to conserve the battery pack power when the camera is not being used, or to prevent the battery pack from dying if the camera has accidentally been left on. You can specify the elapsed time (standby time) before the power save function is activated.

1 **Display the OPTION MENU (page 122).**

2 **Select the power save icon [PS], and press the SET button.**

- The Power Save Setting Screen appears.

RECORDING:
Set the standby time for the shooting modes.
PLAYBACK:
Set the standby time for the playback modes.
BACKLIGHT:
Set the time elapsed during audio playback until the monitor turns off. At the “ALWAYS” setting, the monitor remains on throughout the audio playback.

3 **Select the desired option, and press the SET button.**

- The Set Standby Time Screen appears.

4 **Toggle the SET button up or down to set the standby time.**

Up:
Increases the standby time.
Down:
Decreases the standby time.

<Example: When "RECORDING" is selected>

5 **Press the SET button.**

- The standby time is set, and you are returned to the Power Save Setting Screen.

FILE NO. RESET FUNCTION

If a newly formatted card is used, the file name (image number) of the captured image automatically begins from 0001. If the card is subsequently reformatted, or if a different reformatted card is used, the file names again begin from 0001. This is because the file number reset function is set to “ON”, and consequently it results in more than one card containing images with the same numbers. By setting the file number reset function to “OFF”, even if the card is reformatted or the card is replaced with another card, the consecutive numbering of file names continues from the last number recorded by the camera.

<File number reset function “ON”>

	File name (image number)
Card A	0001, 0002..... 0012, 0013

:

Replace card

▼

Card B	0001, 0002..... 0012, 0013

<File number reset function “OFF”>

	File name (image number)
Card A	0001, 0002..... 0012, 0013

:

Replace card

▼

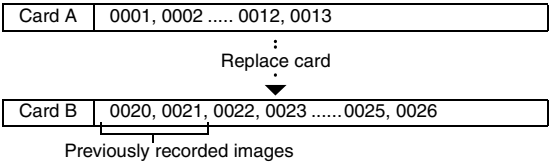
Card B	0014, 0015.....0025, 0026

FILE NO. RESET FUNCTION

- If Card B already has image data in it when it replaces Card A, file names are assigned as follows.

  When the highest image number on Card B (before replacing) is lower than the highest image number on Card A: the file name of the next recorded image continues from last file name recorded on Card A.

  When the highest image number on Card B (before replacing) is higher than the highest image number on Card A: the file name of the next recorded image continues from last file name recorded on Card B.



HINT

What about the internal memory?

- The file number reset function is always set to “ON” for the internal memory; it cannot be set to “OFF”.

1 **Display the OPTION MENU (page 122).**

2 **Select the file number reset icon [No.].**

3 **Press the SET button.**
- The File Number Reset Screen appears.

ON:
The file number reset function is on.
OFF:
The file number reset function is off.

4 **Select "OFF", and press the SET button.**
- The file number reset function is deactivated.

HINT
- Until the file number reset function is turned "ON", consecutive file names are assigned. It is recommended that the file number reset function be returned to "ON" at the end of each photography session.

INITIALIZING THE CARD MEMORY AND INTERNAL MEMORY

A card must be formatted with this camera:
- After purchasing, when used for the first time, or
- If it was formatted using a personal computer or another digital camera.

The card cannot be formatted if the lock switch is set to the "LOCK" position. Proceed with the format procedure after setting the lock switch to the unlocked position.

1 **To reformat a card, install it in the camera. To reformat the camera's internal memory, remove the card from the camera.**

2 **Display the OPTION MENU (page 122).**

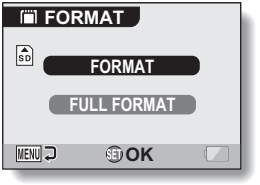
3 **Select the format icon [ ], and press the SET button.**

<Card format>
- The screen to select the type of format appears.
- Follow steps **4** to **6**.

FORMAT:
A normal formatting is executed.

FULL FORMAT:
The entire card is scanned and reformatted. It is not possible to select this when there is no card installed, or when the remaining battery charge is low.

<Internal memory format>
- The screen to confirm formatting appears.
- Follow steps **5** and **6**.



4 **Select the desired format option, and press the SET button.**
- The screen to confirm formatting appears.